Fall 2025 Economics Advanced Courses

ILLINOIS ECONOMICS undergraduate studies

ECON 402: American Economic History

Survey of the history of the American economy from the colonial era to the present. Studies the features and development of the American economy and examines the watershed events that have transformed it over its history. Prerequisites: ECON 202; ECON 302; MATH 220/221 or other Calculus course are required.

CRN: 70477 | Sect. A3 | 321 Gregory Hall
Professor I. Dilanni

ECON 414: Urban Economics

Analyzes the urban economy. Topics include: economic reasons for the existence of cities; the theory of urban spatial structure; the effects of taxation on housing decisions; the economics of freeway congestion; economics analysis of local public goods and services; economic analysis of rent control, slum policies and land-use controls.

CRN: 36347 | Sect. A3 | 119 David Kinley Hall
Professor D. Albouy

ECON 415: Environmental Economics

Application of economic theory to topical issues such as pollution, climate change, and the environmental impacts of overpopulation. Both market-based and regulatory solutions to these problems are discussed. Prerequisite: ECON 202, ECON 302, MATH 220 or MATH 221 or other calculus course.

CRN: 70758 | Sect. A3 | 119 David Kinley Hall
Professor B. Buckley

ECON 420: International Economics

Introduction to the theory of international trade and finance with selected application to current problems of trade policy, balance of payments adjustment, the international monetary system, and globalization issues. Prerequisites: ECON 302 or equivalent, or consent of instructor; ECON 303 is recommended.

CRN: 40296 | Sect. A3 | 123 David Kinley Hall
Professor P. Dziuba

ECON 437: Game Theory

Explores game theory and strategic decision making. Game theory is the study of strategic interaction where one person's actions affect the actions of others. Introduces students to the tools for modeling and solving problems with strategic interaction. Will cover topics such as Nash equilibrium, dominance, vot-ing, bargaining, auction, adverse selection, each of which have broad applications in economics, politics, psychology, and everyday life. Prerequisites: ECON 202; ECON 302; MATH 220/MATH 221 are required. ECON 203; MATH 231 are recommended.

CRN: 70772 | Sect. A3 | 119 David Kinley Hall
Professor S. Krasa

ECON 440: Economics of Labor Markets

Studies the microeconomic determinants of labor demand and supply, economic effects of unions, and macroeconomic labor market problems. Prerequisite: ECON 302 or equivalent.

CRN: 666601 | Sect. B3 | 123 David Kinley Hall
Professor H. Yoo

ECON 442: Women in the Economy

Applies economic models of the labor market and household organization to a wide range of important topics, including marriage, fertility, discrimination, and family policies to better understand both personal life choices and public policy problems. Prerequisites: ECON 203, ECON 302, MATH 220 or 221 or other calculus; completion of Composition I gen ed requirement.

CRN: 70549 | Sect. A3 | 219 David Kinley Hall
Professor E. Powers

ECON 447: Economics of the Workplace

Application of economic theory to the relationship between workers and firms in the workplace. We will apply important economic concepts and models to issues including recruitment, personnel selection, employee training, managing turnover, job design, performance evaluation, and incentive compensation. Prerequisites: ECON 202; ECON 302; MATH 220/MATH 221 or other Caculus course.

CRN: 70768 | Sect. A3 | 119 David Kinley Hall
Professor Y. Sun

ECON 448: Employee Compensation and Incentives

Employee compensation is a critical tool for organizations to attract, retain, and motivate its employees. Students will be introduced to major principles in compensation design and will examine the incentives embedded in various compensation systems. The topics include forms of pay, incentive theory, pay structure, pay-for-performance, and employee benefits. Prerequisites: ECON 202; ECON 302; MATH 220/MATH 221 or other Calculus course.

CRN: 70770 | Sect. A3 | 333 Armory
Professor Y. Sun

ECON 450: Development Economics

Analyzes the economic problems associated with newly developing nations; emphasizes their economic structures, their factor scarcities, and their programs for development.

Prerequisites: ECON 102 and ECON 103 or equivalent. ECON 302 strongly recommended.

CRN: 61807 | Sect. A3 | 123 David Kinley Hall
Professor R. Akresh

ECON 469: Economics of Risk

Exploration of economic decisions under uncertainty. Includes expected utility theory and non-expected utility theory; applications to individual decision problems in investment and insurance; general equilibrium in markets under uncertainty, including problems generated by asymmetric information; measurement of risk; the value of information obtained before a decision. Prerequisites: ECON 302 or equivalent; one of MATH 220 or MATH 221 or equivalent.

CRN: 61507 | Sect. A3 | 123 David Kinley Hall
Professor P . Dziuba

ECON 472: Financial Econometrics

Examines the econometric modeling applied to empirical and computational finance. Explains the empirical properties of financial data as well as the statistical models behind these stylized facts from the data. Explains the statistics and time series concepts that will be useful to understand financial market dynamics, and inves-tigates some popular econometric models and estimation methods. Prerequisites: ECON 203; ECON 302; MATH 220/MATH 221 are required. MATH 231; ECON 471 are recommended.

CRN: 70813 | Sect. A3 | Online
Professor J. Lee

ECON 474: Econometrics of Policy Evaluation

Develops the basic tools to understand and use modern econometric methods for estimating and making inference of causal effects. The topics include randomized experiments, natural experiments, matching methods, instrumental variables, and regression discontinuity. Focuses on topics which are relevant for policy problems. Prerequisites: ECON 203; ECON 302; MATH220/221 are required. MATH 231; ECON 471 are recommended.

CRN: 70818 | Sect. B3 | 123 David Kinley Hall
Professor E. Chung

ECON 475: Economic Forecasting

Overview of modern, quantitative, statistical and econometric methods for forecasting and evaluating forecasts. Topics include linear regressions; modeling and forecasting trends and seasonality; characterizing and forecasting cycles; MA, AR, and ARMA models; forecasting with regressions; evaluating and combining forecasts. Advanced topics include unit roots, stochastic trends, ARIMA models, and smoothing will be covered as time permits. Prerequisites: ECON 203; ECON 302; MATH 220/MATH 221 are required. MATH 231 is recommended.

CRN: 76093 | Sect. A3 | Online n.a.
PhD Student F. Da Cunha Rodrigues

ECON 480: Industrial Comp and Monopoly

Analyzes the ways firms and markets are organized, how they interact, outcomes of various types of firm behavior and performance of markets, and causes and types of market failure. Particular emphasis on the contribution of game theory as the equilibrium concept in oligopoly settings. Prerequisite: ECON 302.

CRN: 30045 | Sect. A3 | 215 David Kinley Hall
Professor A. Toossi

Key for Course Field(s)

Microeconomics
Macroeconomics
Econometrics/Quantiative Economics

400 Level Playlist
https://go.illinois.edu/Econ400LevelPlaylist

ECON 482: Economics of the Digital Economy

Analysis of firm strategies and public policy issues surrounding the digital economy and related industries. Applies economic tools and principles,including game theory, industrial organization, and information economics. Topics include: differentiation of prices and products;

search cost and price dispersion; network effects and system competition; economics of platforms; intellectual property; antitrust regulations. Prerequisite: ECON 302; MATH 220/ MATH 221 or Calculus I equivalent.

CRN: 75878 | Sect. A3 | 119 David Kinley Hall
Professor S. Hong

ECON 483: Econ of Innovation and Tech

Examines the economic factors shaping innovation and technical change since the industrial revolution with emphasis on the economic relationship between science and technology and the role of government in technical change. Prerequisite: ECON 102 or equivalent; ECON 302 or consent of instructor.

CRN: 45915 | Sect. A3 | 1020 Wymer Hall
Professor J. Lemus Encalada

ECON 484: Law and Economics

Applications of economic theory to problems and issues in both civil and criminal law and the effect of legal rules on the allocation of resources; includes property rights, liability and negligence assignment, the use o administrative and common law to mitigate market failure, and the logic of private versus public law enforcement. Prerequisite: ECON 302 or equivalent.

CRN: 66593 | Sect. A3 | 215B David Kinley Hall
CRN: 40285 | Sect. B3 | 215B David Kinley Hall

Professor C. Shultz

ECON 490: International Trade

This course is about the causes and consequences of the international trade of final goods, services, and production inputs. Throughout the course, we will cover the main topics related to international trade that are at the center of the public debate using rigorous economic models. We will discuss issues including the benefits and costs of trade, the effects of trade policies, such as tariffs and quotas, the role of international institutions such as the World Trade Organization; also questions such as what products are traded, who trades them. and at what quantities and prices are they sold. Prerequisites: ECON 202; ECON 302 or ECON 303; MATH 220 or MATH 221 or other Calculus course.

CRN: 58146 | Sect. C3 | 125 David Kinley Hall
PhD Student C. Wang

ECON 490: Political Economy

Political Economy studies the relationship between politics and the economy, and how each influences the other.

The tools of microeconomics and macroeconomics are utilized to understand behaviour of rational and goal driven political actors

Prerequisite: ECON 202; ECON 302 or ECON 303; MATH 220 or MATH 221 or other Calculus course

CRN: 63647 | Sect. F3 | 119 David Kinley Hall
Professor T. Dubovyk

Econ 490: Economic Growth

The course is designed to inspect some fundamental questions in the world economy- What are the primary factors driving the per capita GDP growth of any particular country? What explains the convergence or divergence patterns of growth rates across nations? Scholars have proposed different theories to address these concerns and we will explore some of them. Firstly, we examine long run growth determined by exogenous factors, secondly, we discuss endogenous growth by looking at technical factors and role of human capital, thirdly we delve deeper by considering population dynamics and its implications, fourthly we look at more recent theories emphasizing the role of institutions and finally we evaluate all the theories together. The objective of the course is to enable students to apply the knowledge of macroeconomic theory and mathematical tools to address issues in growth. REQUIRED PREREQUISITES: ECON 302 & 303. RECOMMENDED: Basic knowledge of any statistical software. R/Excel/ Stata may be used in a few classes.

CRN: 66869 | Sect. G3 | 333 Armory
Professor J. Vazquez

ECON 491: Intermediate Econometrics

This course is designed to provide students with the essential data analysis skills required to be competitive in the labor market in the new age of AI and is a foundation for advanced 400-level courses including (but not limited to) causal inference, machine learning, forecasting, policy analysis, and financial econometrics.

Prerequisites: ECON 203; ECON 302; and MATH 220/221

CRN: 77796 | Sect. A3 | 120 Architecture Building
Professor J. Shea

ECON 491: Market Failures and Remedies

Economists typically believe that unless there is a specific reason to expect a market to fail, it will likely work well. In this course, we will try to understand why most economics hold the initial presumption that markets work. In doing so, we will uncover several canonical threats to markets and develop a simple typology of market failures: (i) Externalities and pricing failures, (ii) Participation and inefficient matches, (ii) Asymmetric information and inefficient allocation, (iii) Market power and distortions, and (iv) Hold-up, moral-hazard, and dynamic inefficiencies. In each case, we will try to understand whether a planner or regulator could alleviate the market failures. That is, we will not limit ourselves to studying existing markets but also think about how to design (or redesign) poorly performing ones. This is known as Mechanism and Market design. We will approach these issues from a theoretical perspective and examine real-world applications. Examples will include how Google sells advertising space, how medical students are matched to residencies, and how governments auction natural resources, carbon taxation, etc.

Prerequisite: MATH 231.

CRN: 78399 | Sect. B3 | 317 David Kinley Hall
Professor T. Durandard

ECON 491: Bayesian Machine Learning

The goal of the course to introduce students to Bayesian econometrics and statistics as well as frequentist methods that are common in economics, finance, marketing, and business applications. It aims to improve students quantitative skills. The course will make use of the R programming language. The course will cover (i) fundamentals of Bayesian econmtrics statistics; (ii) beta-binomial model; (ii) Poisson count models; (iii) simple linear and multiple linear regression models with conjugate priors; (iv) Monte Carlo simulation techniques including Markov chain Monte Carlo; (v) Poisson and negative binomial regression (vi) logistic and Probit regression (vii) basics of causal inference (viii) linear panel data models (fixed effects and random effects)

Prerequisites: MATH 231. Linear Algebra recommended.

CRN: 77798 | Sect. C3 | 123 David Kinley Hall
Professor D. Creal

ECON 491: Decision-Making

This course will help students think about how data and economics can be used to inform decision-making in policy, business, and life. We start by covering the four-broad types of data analysis: descriptive analysis, causal inference, cross-sectional prediction, and forecasting. We then learn how economic and decision theory can be used to determine which of these types of data analysis are appropriate for making different types of decisions and what information is needed. We then cover some core techniques in these different types of data analysis. Students will learn about the pitfalls and challenges they will encounter when applying these techniques to actual decisions by tackling real world examples in business, policy, and in their own lives.

Prerequisites: ECON 203; ECON 302; and MATH 220/221; Recommended Econ 471 or equivalent statistics course

CRN: 78395 | Sect. D3 | 123 David Kinley Hall
Professor A. Bartik

ECON 491: Data Analyisis Problem Solving

Students in this course will work in groups of 4 to organize and analyze a data set, develop models, solve problems, and present results. Classes will alternate discussions about each step of the process with computer lab work. This class focuses on the process, rather than the results, of data analysis and problem solving.

Prerequisites: ECON 203; ECON 302; and MATH 220/221 or Calculus I equivalent; ECON 471 and familiarity with R or Python.

CRN: 78463 | Sect. E3 | 382 Education Building
Professor D. Alonso Fontes