# Fall 2025 Economics Advanced Courses



### 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 415: Environmental Economics**

Application of economic theory to topical issues such as pollution, climate change, and the environmental impacts of overpopulation. Both marketbased 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.

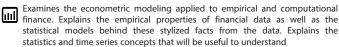
> CRN: 61807 | Sect. A3 | 123 David Kinley Hall Professor R. Akresh

### 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**



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 | 123 David Kinley Hall 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

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

## ECON 475: Economic Forecasting

are recommended.

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. Professor 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

## 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

## Key for Course Field(s)





III Econometrics/Quantiative Economics



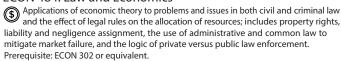
400 Level Playlist https://go.illinois.edu/ Econ400LevelPlaylist

### 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



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

### ECON 490: Men in the Economy



This course examines men's traditional and evolving roles in the economy. The course delves into factors especially germane to men's labor force participation and earnings, including unionization, disability and health, and military service. Challenges such as, real wage declines in traditionally male occupations and men's relatively slow growth in educational attainment are also explored. The course format includes computer labs where students apply their knowledge to conduct empirical work on course topics.

> CRN: 63644 | Sect. A3 | 432 Armory Professor E. Powers

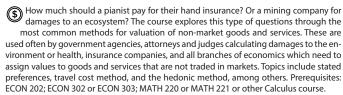
### ECON 490: International Trade



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: Valuation of Nonmarket Goods



CRN: 61740 | Sect. E3 | 215B David Kinley Hall Professor F. Cenerini

## 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 Al 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



This course covers the foundations of microeconomic theory, from Consumer and Producer Theories to an introduction of General Equilibrium.

Prerequisite: MATH 231.

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

### ECON 491: Machine Learning



This course develops analytical tools to employ economic modeling and data to make better strategic decisions. The objective of this course is to foster data-driven criticalthinking skills through econometric analyses and statistical interpretation.

Prerequisites: ECON 203; ECON 302; and MATH 220/221 or Calculus I equivalent

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 fourbroad 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