# Fall 2023 Economics Advanced Courses



### ECON 402: American Economic History

Survey of the history of the American Economy from the colonial era 26 (**f**) 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 courses are required.

CRN 70477; Sect. A3; TR 11:00AM-12:20PM; 321 Greg Hall Professor I. Dilanni

#### ECON 415: Environmental Economics

Application of economic theory to topical issues such as pollution, climate 210 change, and the environmental impacts of overpopulation. Both marketbased and regulatory solutions to these problems are discussed. *Prerequisites:* ECON 202; ECON 302; MATH 220/221 or other Calculus course. CRN 70758; Sect. A3; TR 11:00AM-12:20PM; 319 Greg Hall Professor B. Buckley

#### ECON 422: International Macroeconomics

International macroeconomics and financial crises. Topics include balance of payments, exchange rates, business cycle risk, currency unions, and of payments, exchange rates, business cycle risk, currency unions, and safe assets. Emphasis on understanding different types of financial crises from a positive and normative perspective. *Prerequisites*: ECON 202 or introductory statistics equivalent, ECON 303, MATH 220/221 or Calculus I equivalent.
CRN 77282; Sect. A3; TR 9:30AM-10:50AM; 1090 Lincoln Hall Professor G. Howard

#### ECON 425: Macroeconomic Policy

Analyzes current macroeconomic policy issues, problems, and techniques; discusses various policy techniques including monetary, Construction of the con 231 is recommended. Prior exposure to financial markets is encouraged. CRN 70552; Sect. A3; TR 9:30AM-10:50AM; 215 DKH Grad Student H. Martinez Garcia

#### ECON 426: Monetary Economics & Policy

Study of a variety of topics on money, banking, and financial markets. In particular, provides an introduction to money and its role in the economy, the bond market and interest rates, the stock market and other financial assets, exchange rates, banks and regulation of the banking industry, the money supply process and monetary policy. *Prerequisites*: ECON 202; ECON 303; MATH 231 are required. ECON 302 is recommended; Prior exposure to financial markets is

# also encouraged. CRN 70775; Sect. A3; TR 12:30pm-1:50pm; Pending Instructor Pending

## 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, voting, bargaining, auction, and adverse selection, each of which has broad applications in economics, politics, psychology, & everyday life. Prerequisites: ECON 202; ECON 302; MATH 220/221. ECON 203; MATH 231 are recommended.

#### CRN 70772; Sect. A3; MW 11:00AM-12:20PM; Pending Professor S. Krasa

#### ECON 442: Women in the Economy - Adv. Comp

Applies economic models of the labor market and household organization So 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 I equivalent; completion of campus Composition I general education requirement.

CRN 70549; Sect. A3; MW 9:30AM-10:50AM; 209 DKH Professor E. Powers

# Key for Course Area(s) of Focus:

**Big Microeconomics** (S) Macroeconomics Econometrics/Quantitative **Economics** 

# 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 2<sup>2</sup>0 models to issues including recruitment, personnel selection, employee training, managing turnover, job design, performance evaluation, and incentive compensation. *Prerequisites:* ECON 202; ECON 302; MATH 220/221 or other Calculus courses.

CRN 70768; Sect. A3; TR 9:30AM-10:50AM; 123 DKH Professor Y. Sun

# ECON 448: Employee Compensation & Incentive

Employee compensation is a critical tool for organizations to attract, retain, and motivate their employees. Students will be introduced to major 20 principles in compensation design and examine the incentives embedded in various compensation systems. The topics include forms of pay, incentive theory, pay ECON 302; MATH 220/221 or other Calculus courses. CRN 70770; Sect. A3; TR 12:30PM-1:50PM; 1092 Lincoln Hall

Professor Y. Sun

#### ECON 450: Development Economics

Analyzes the economic problems associated with newly developing 80 nations; emphasize their economic structures, their factor scarcities, and their programs for development. Not open for graduate credit to graduate candidates in economics. *Prerequisites:* ECON 102 and ECON 103 or equivalent. ECON 302 is strongly recommended.

CRN 61807; Sect. A3; TR 11:00AM-12:20PM; 123 DKH Professor R. Akresh

#### ECON 456: Economic Development & Migration

Topics include the inter-relationships between economic development and 210 migration. After introducing the basic concepts of poverty and inequality between as well as within countries - this course focuses on the role that migration and population growth play in the process of economic development. The causes of migration and its consequences are examined at national and international levels together with their policy implications, including those related to urbanization, brain drain, and labor market impacts of immigration. A range of migration forms is discussed, including international and internal migration, permanent and temporary migration, legal and illegal migration, as well as forced migration and refugees. *Prerequisites:* ECON 202; 302; MATH 220/221 or other Calculus course

CRN 77550; Sect. A3; MW 11:00AM-12:20PM; 215B DKH CRN 77554; Sect. B3; MW 12:30PM-1:50PM; 215B DKH **Professor M. Kleemans** 

# ECON 460: Financial Economics

Introduces basic financial products (stocks, bonds, futures, options, and other derivatives), asset pricing theory including capital asset pricing model (CAPM), arbitrage pricing theory (APT), financial institutions and the organization of financial markets, and some topics on financial crisis and monetary policy. Prerequisites: ECON 202; ECON 302; MATH 220/221 or other Calculus course.

CRN 70812; Sect. A3; MW 9:30AM-10:50AM; Pending Grad Student M. Cho

# ECON 471: Intro to Applied Econometrics

Introduction to specification, estimation, prediction and evaluation of econometric models, emphasizing the interplay between statistical theory and economic applications. *Prerequisites:* ECON 203 or equivalent; ECON 302 or ECON 303

CRN 50082; Sect. A3; MW 3:30PM-4:50PM; 114 DKH Professor J. Shea

# ECON 483: Econ of Innovation & 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. **Prerequisites**: ECON 102 or equivalent; ECON 302 or consent of instructor.

CRN 45915; Sect. A3; MW 11:00AM-12:20PM; 123 DKH Professor J. Lemus

#### **Helpful Links:**

**Courses & Registration:** 

https://economics.illinois.edu/academics/courses-and-registration

Course Syllabi: http://go.economics.illinois.edu/syllabi

Fall 2023 Restriction Information: https://go.economics.illinois.edu/Fall2023Restrictions

# 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; include property rights, liability and negligence assignment, the use of administrative and common law to mitigate market failure, and the logic of private versus public law enforcement. **Prerequisites:** ECON 302 or equivalent.

CRN 66593; Sect. A3; TR 9:30AM-10:50AM; 215B DKH Professor C. Schultz

# ECON 490: Valuation of Nonmarket Goods

How much should a planist pay for their hand insurance? Or a mining company for damage to an ecosystem? The course explores this type of 26 question through the most common methods for the valuation of non-market goods and services. These are used often by government agencies, attorneys, and judges calculating damage to the environment or health, insurance companies, and all branches of economics which need to assign values to goods and services that are not traded in markets. Topics include stated preferences, travel cost methods, and the hedonic method, among others. By the end of the course, the student will be familiar with the most common evaluation methods and will be able to apply and modify them for new contexts. Prerequisites: ECON 202;

# ECON 302 or ECON 303; MATH 220 or MATH 221 or other Calculus courses. CRN 56978; Sect. A3; MW 11:00AM-12:20PM; 125 DKH Grad Student F. Cenerini

#### ECON 490: Consumer & Investor Protection

Examines the legal protections for consumers and investors from false or 20 misleading advertising and other deceptive marketing practices. The course discusses the legal remedies under the common law doctrine of fraud but spends most of the time on the laws and regulations against these practices that are enforced by government agencies such as the Federal Trade Commission and the Securities and Exchange Commission. For each topic, we will discuss the economic

# ECON 490: Real Estate & Housing

Provides a comprehensive introduction to real estate and housing 20 economics including the fundamentals of real estate (location, valuation, regulation, usage); segregation, gentrification and inequality; and government's role in regulating housing markets (real estate taxes, land use regulations, etc.). You will learn the fundamental characteristics of real estates, key factors that influence its supply and demand, types of government policies that play a key role in housing markets and be able to formulate an original housing-related research

question and write a coherent research paper. CRN 66595; Sect. C3; TR 2:00pm-3:20PM; 317 DKH Grad Student M. Yi

# ECON 490: Gender & Development

Focuses on the role of gender economics in developing countries. A 210 variety of topics in the intersection of gender economics and development economics will be covered, including gender inequality, women's empowerment, household dynamics, the role of government, poverty cycles, violence, and the interaction of race and gender dynamics. We will focus on the roles and circumstances of women in developing countries and how inequalities between men and women originated and continue to impact outcomes today. Students will read papers related to each of these topics and will write their own research paper on a topic and country of their choice. **Prerequisites**: ECON 202; ECON 302 or 303; MATH 220/221 or other Calculus courses

#### CRN 58260; Sect. D3; TR 3:30PM-4:50PM; 119 DKH Grad Student A. Stocker

## ECON 490: Behavioral Economics

Focus on the intersection of Behavioral and Experimental economics using 26 eio field experiments, lab experiments, and tests of a theory to answer policy and social issue questions. *Prerequisites*: ECON 202; ECON 302 or ECON 303; MATH 220 or MATH 221 or other Calculus courses. CRN 58262; Sect. E3; MW 12:30PM-1:50PM; 119 DKH

Grad Student S. Bhardwaj

#### ECON 490: Economic Growth

Designed to inspect some fundamental questions in the world economy-What are the primary factors driving the per capita GDP growth of any 59 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 the 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. *Prerequisites*: ECON 302 & 303. Recommended: Basic knowledge of any statistical software. R/Excel/ Stata may be used in a few classes. Prerequisite: ECON 202; ECON 302 or ECON 303; MATH 220/221 or other Calculus courses. CRN 66869; Sect. F3; MW 12:30PM-1:50PM; 1000 Lincoln Hall

Professor J. Vazquez

# 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 guotas, 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?

CRN 58146; Sect. G3; MW 9:30AM-10:50AM; 1000 LH Grad Student C. Wang

#### ECON 491: Non-Linear Econometric Models

Duration analysis is used to address a wide range of questions relevant Щq for policy organizations, central banks, the financial sector, and industry generally. Examples of these questions include: what is the probability that an individual will exit unemployment this week, given he has been unemployed for the past eight weeks; what is the probability that an individual defaults on their mortgage this month given they have not defaulted for the past 12 months; what is the probability that a firm adopts a new technology this year conditional on not having adopted for the past 3 years, and how does this depend on the firm's market share. The goal of this course is to develop the tools to understand, estimate, and interpret duration analysis models-statistical models used to analyze duration data. Students will gain practical experience organizing data and writing code for statistical software to estimate these models and better understand economic phenomena. Prerequisites: ECON 302 or 303, and ECON 471.

#### CRN 78399; Sect. A3; TR 9:30AM-10:50AM; Pending Professor R. Weinstein

## ECON 491: Decision-Making

This course will help students think about how data and economics can be шq 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:* Required Econ 203, 302 and Math 220/221; Recommended Econ 471 or equivalent statistics course

#### CRN 78395; Sect. B3; TR 11:00AM-12:20PM; 119 DKH Professor A. Bartik

ECON 491: Analysis: Business Consulting

Students in this course will work in groups of 4 to organize and analyze a ШQ 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. Participation and presentations will be part of the graded work. Prerequisites: Econ 471 is required and will be enforced. Students who have not completed Econ 471 prior to beginning the course will be dropped. Previous knowledge of R or Python is required.

#### CRN 78397; Sect. C3; TR 12:30PM-1:50PM; Pending **Professor D. Alonso Fontes**

# ECON 491: Predictive Analysis

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

CRN 77798; Sect. D3; MW 11:00AM-12:20PM; 119 DKH Professor R. Armendariz Buaun

#### ECON 491: Applied Machine Learning

📢 Macro

Students will gain exposure to a variety of machine-learning approaches <u>h</u>d for supervised and unsupervised learning. Topics include regularized approaches like lasso and ridge regression, trees, boosting, support vector machines, cluster analysis, and predictive assessment using cross-validation. Emphasis is given on applications with the use of a programming language like R or Python. Prerequisites: ECON 203 & 302, MATH 220/221, or Calculus I equivalent.

CRN 77796; Sect. E3; MW 9:30PM-10:50AM; 119 DKH **Professor M. Cunha Medeiros** 

📲 Micro

Econometrics/Quant.