

# Economics

## Chair

David J. Cooper

**Undergraduate major:** economics (BA, BS, BBA)

**Undergraduate minor:** economics

**Graduate degrees:** MA in economics; PhD in economics

**Faculty:** <https://tippie.uiowa.edu/people/?cohort=538355>

**Website:** <https://tippie.uiowa.edu/about/economics-department>

## Courses

Students may take ECON:1100 Principles of Microeconomics and ECON:1200 Principles of Macroeconomics in either order or simultaneously. They are approved for the Social Sciences area of the College of Liberal Arts and Sciences GE CLAS Core.

Qualified undergraduates may enroll in graduate-level courses (numbered 5000 and above) with the consent of the department chair.

## Economics Courses

### **ECON:1100 Principles of Microeconomics** 4 s.h.

Organization, workings of modern economic systems; role of markets, prices, competition in efficient allocation of resources and promotion of economic welfare; international trade. Requirements: BBA students cannot use this course for GE CLAS Core Social Sciences. GE: Social Sciences.

### **ECON:1200 Principles of Macroeconomics** 4 s.h.

National income and output, unemployment, and inflation; economic growth and development; money and credit; monetary and fiscal policy; government finance; international finance. Requirements: BBA students cannot use this course for GE CLAS Core Social Sciences. GE: Social Sciences.

### **ECON:1300 First-Year Seminar** 1 s.h.

Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities).

### **ECON:3050 Professional Preparation in Economics** 1 s.h.

Overview of career avenues for economics majors; how to pursue different career paths and synergies with other courses/majors; development of hard and soft skills required for success in those careers; discussion of use of economics to understand current events; development of skills, strategy, and tools for successful internship and employment search.

### **ECON:3100 Intermediate Microeconomics** 3 s.h.

Economic theory of the behavior of consumers, producers, and other economic agents; role of markets in coordinating economic activity; effects of government policies on market outcomes; conditions that markets require for efficient allocation of resources; market imperfections; strategic behavior of economic actors. Prerequisites: ECON:1100 and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

### **ECON:3125 Intermediate Microeconomics:**

#### **Advanced** 3 s.h.

Economic theory of the behavior of consumers, producers, and other economic agents; role of markets in coordinating economic activity; effects of government policies on market outcomes; conditions that markets require for efficient allocation of resources; market imperfections; strategic behavior of economic actors; similar to ECON:3100, but with more rigorous examination of topics and use of calculus. Prerequisites: ECON:1100 and MATH:1850 and MATH:1860.

### **ECON:3150 Intermediate Macroeconomics** 3 s.h.

Measurement of macroeconomic indicators; economic growth and business cycles; use of macroeconomic models to study the role of government fiscal and monetary policies. Prerequisites: ECON:1200 and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

### **ECON:3300 Introduction to Econometrics: Causal Inference With Data** 3 s.h.

Use statistical methods to estimate economic relationships, test economic theories, and evaluate and implement government and business policy. Analyze economic events, make forecasts, and gauge the effectiveness of plans. Prerequisites: STAT:1030 and (MATH:1350 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

### **ECON:3325 Personnel Economics** 3 s.h.

Using microeconomics to learn about labor markets and the future of work. Prerequisites: ECON:1100.

### **ECON:3335 Money, Banking, and Financial Markets** 3 s.h.

Role of financial sector in channeling funds from savers to investors to boost the economic growth of the country; the nature of financial markets, prices, and interest rate determination of financial instruments; the nature of financial institutions; management and regulation of financial markets and financial institutions; the role of money in the economy, role of the Federal Reserve, economic fluctuations, monetary and fiscal policies, exchange rate determination, and nature and causes of financial crises. Prerequisites: ECON:1100 and ECON:1200.

### **ECON:3340 Economics of Inequality** 3 s.h.

Core concepts and measures of inequality and focus on empirical analysis; trends in income and wage inequality, differences by race and gender, intergenerational mobility, and the role of technology and institutions; use of empirical tools and focus on evidence-based analysis; reading and evaluation of empirical papers, and completion of a project with original empirical analysis. Prerequisites: ECON:1100.

### **ECON:3345 Global Economics and Business** 3 s.h.

Review of basic economic models to explain international trade patterns based on technology, resource endowments, and monopolistic competition, the balance of payments, and exchange rates. Prerequisites: ECON:1100.

### **ECON:3350 Industry Analysis** 3 s.h.

The organization of industries, market structure and performance, and regulation and antitrust policy form. Prerequisites: ECON:1100.

- ECON:3355 Economic and Business Forecasting 3 s.h.**  
Forecasting economic variables like interest rates, exchange rates, levels of employment, inflation rates, housing prices, sales, and gross domestic product (GDP); analyze future events and make forecasts to gauge effectiveness of plans. Econometrics allows businesses and policymakers to analyze future events and make forecasts. Prerequisites: ECON:1100 and ECON:1200 and (ECON:3300 or ECON:4800 or STAT:3200 or BAIS:2800 with a minimum grade of B).
- ECON:3360 Experimental Economics 3 s.h.**  
Techniques of experimental economics and major applications of these techniques. Prerequisites: ECON:1100.
- ECON:3380 Business and Government 3 s.h.**  
Role of the government in reshaping U.S. enterprises and the U.S. economy; the government's economic policies promoting, stabilizing, and regulating the economy and its influence on the welfare of citizens of the country; the influence of business owners and entrepreneurs on the government, shaping political and economic outcomes in the United States. Prerequisites: ECON:1100.
- ECON:3620 Economic Growth and Development 3 s.h.**  
Determinants of rising living standards; accumulation of physical and human capital; predictions of economic growth models compared to observed changes in living standards. Prerequisites: ECON:1100 and ECON:1200.
- ECON:3625 Environmental and Natural Resource Economics 3 s.h.**  
Environmental and resource use problems; efficient mechanisms and other policies for environmental protection, management of common property resources. Prerequisites: ECON:1100 and ECON:1200. Same as URP:3135.
- ECON:3640 Regional and Urban Economics 3 s.h.**  
Theory of location and regional development; central place theory; why cities exist and trade with one another; models of land use patterns, rents; empirical tests of models; policy applications. Prerequisites: ECON:1100. Same as URP:3134.
- ECON:3650 Policy Analysis 3 s.h.**  
Public policies influencing the economy, adequacy of policies made by the federal, state, and local levels of the government, and policymaking process. Develop financial, statistical, and economic tools of policy formulation and evaluation; examine policies informed by theory for economic growth and development, externalities, public goods, health care, education, taxation, inequality, welfare, social security, and environment. Prerequisites: ECON:1100.
- ECON:3690 Sports Economics 3 s.h.**  
Theory and literature of economic issues in professional sports; issues such as relative advantages of large-and small-market teams, city subsidies for baseball and football stadiums, star players' true value to their teams; ideas from introductory economics (such as demand and cost curves) combined with additional economic theory, statistical evidence, and information about particular sports. Prerequisites: ECON:1100.
- ECON:3750 Transportation Economics 3 s.h.**  
Overview of transportation markets—intercity, rural, urban; transportation modes—rail, highway, air, water, pipeline, transit; issues in finance, policy, planning, management, physical distribution, and environmental, economic, and safety regulation. Recommendations: ECON:1100 and ECON:1200. Same as SEES:3940, URP:3350.
- ECON:3760 Health Economics 3 s.h.**  
Externalities and health behaviors; government influence on health behaviors; overview of health insurance and health insurance markets; health care costs; public health insurance; health insurance reforms. Prerequisites: ECON:1100.
- ECON:3800 Law and Economics 3 s.h.**  
Law examined through analytic tools of microeconomics; impact of legal rules on resource allocation, risk bearing, distribution of economic well-being. Prerequisites: ECON:1100.
- ECON:3825 Economics of Sustainability 3 s.h.**  
Energy lights and heats our homes, provides transportation via air, water, or land, and is used for producing the goods and services we demand; while some countries deal with the misuse of energy, other countries struggle with their population not having enough; sustainability is a property of whole systems, such an ecosystem or the Earth as a whole, but also pertains to smaller units such as corporations; sustainability is an area of study that draws on both microeconomics and macroeconomics; examine energy usage, employing economic theory, relevant literature, and case studies of worldly and corporate sustainability. Prerequisites: ECON:1100 and ECON:1200.
- ECON:3830 Global Trade Finance 3 s.h.**  
Understanding and analyzing international trade transactions, including mode of payments, financial instruments, hedging techniques, etc.; assignments include finding trade financing solutions for companies through scenario analyses and case studies. Prerequisites: ECON:1100.
- ECON:3850 Behavioral Economics 3 s.h.**  
Behavioral economics is a relatively new field that applies insights gleaned from psychology to economics; standard economic theory assumes people are all *homo economicus*: we know exactly how to maximize our own utility, and we do it well; behavioral economists seek to improve microeconomic theory with more realistic assumptions about human behavior. Prerequisites: ECON:1100.
- ECON:3870 Federal Reserve Challenge 1 s.h.**  
Experience what Federal Reserve economists do every day: study the real U.S. economy, make forecasts and policy recommendations, defend their views to academic and professional economists; development of analytical skills, teamwork, how to build presentations. Prerequisites: ECON:3100 and ECON:3150.
- ECON:3875 Topics in Policy Economics 3 s.h.**  
Topics vary. Prerequisites: ECON:1100 and ECON:1200.
- ECON:4050 Readings and Independent Study in Economics arr.**
- ECON:4090 Natural Resource Economics 3 s.h.**  
Economics of natural resources; interaction between economic theory, empirical evidence, and public policy; land, water, fish, trees, minerals; externalities. Prerequisites: ECON:3100 or ECON:3125.
- ECON:4110 International Economics 3 s.h.**  
Neoclassical model of international trade; imperfect competition and international trade and investment; role of trade barriers; regional trade agreements and the World Trade Organization. Prerequisites: ECON:3100 or ECON:3125.

- ECON:4140 Labor Economics** 3 s.h.  
Analyze how labor markets function and their influence on worker and firm decisions; learn theories of labor supply and demand and equilibrium dynamics; examine applied topics in labor economics such as human capital and wage determination; understand labor market data and theory; approach problems from the mindset of a microeconomist. Prerequisites: ECON:3100 or ECON:3125.
- ECON:4160 Public Sector Economics** 3 s.h.  
Economic functions of government; social welfare programs; income distribution; policies that address market failures; budgetary processes; effects of government expenditures; taxation. Prerequisites: ECON:3100 or ECON:3125.
- ECON:4170 Monetary Economics** 3 s.h.  
Demand for and supply of money; money's role in economy; empirical studies of money's impact; problems with monetary control. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.
- ECON:4180 Industrial Organization** 3 s.h.  
Market structure; effects of business practices, informational problems on market structure; appraisal of antitrust policies, government regulation of business. Prerequisites: ECON:3100 or ECON:3125.
- ECON:4190 Mathematical Economics** 3 s.h.  
Mathematical structure of economic principles, problems, systems; may include constrained optimization, choice under uncertainty, general equilibrium and welfare economics, dynamical systems and control theory, game theory. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.
- ECON:4200 Game Theory** 3 s.h.  
Basic concepts of game theory including dominance, backward induction, Nash equilibrium, evolutionary stability, commitment, credibility, asymmetric information, adverse selection, signaling; provides students with a working understanding of game theory; examples drawn from economics and politics. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.
- ECON:4700 Topics in Analytical Economics** 3 s.h.  
Topics vary. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150.
- ECON:4800 Econometric Analysis: Advanced Causal Inference With Data** 3 s.h.  
Application of statistics to problems in empirical economics; tools for testing whether economic theories are consistent with real world observations and for predicting how economic policy measures or changes in other factors would affect economic agents. Linear regression, nonlinear regression, panel data, instrumental variables, and limited dependent variables models. Prerequisites: STAT:3101 or STAT:3120.
- ECON:4999 Honors Thesis in Economics** arr.  
Independent research project supervised by economics faculty member; culminates in thesis required for honors in the major. Prerequisites: (ECON:3100 or ECON:3125) and ECON:3150 and (ECON:3300 or ECON:4800).
- ECON:5000 Economic Analysis I** 3 s.h.  
Basic metric topology, convex analysis, function spaces, measure theory and integration.
- ECON:5005 Real Analysis for Economics** 2 s.h.  
Basic metric topology, convex analysis, function spaces, measure theory, and integration.
- ECON:5010 Applied Computational Methods for Economics and Finance** 3 s.h.  
Introduction to numerical methods and their applications in economics and finance, with implementation in Julia; numerical programming (performance, control flow), optimization (including constrained methods and Kuhn-Tucker conditions), dynamic programming, and simulation; emphasis in core techniques; focus on applications to economic models, including nested fixed-point models and dynamic discrete choice models; implementation of estimation methods such as simulated method of moments and maximum likelihood.
- ECON:5100 Microeconomics I** 3 s.h.  
Consumer choice theory, producer theory, choice under uncertainty, basic game theory. Offered fall semesters.
- ECON:5110 Microeconomics II** 3 s.h.  
General equilibrium and welfare analysis, adverse selection, the principal-agent problem, social choice, mechanism design. Offered spring semesters. Prerequisites: ECON:5100.
- ECON:5115 Fundamentals of Microeconomics** 3 s.h.  
Consumer theory, producer theory, partial equilibrium models, expected and unexpected utility theory.
- ECON:5125 Game Theory** 2 s.h.  
Noncooperative and cooperative games, games of perfect and imperfect information, matching games.
- ECON:5200 Macroeconomics I** 3 s.h.  
Economic growth, business cycles, money and inflation. Offered fall semesters.
- ECON:5210 Macroeconomics II** 3 s.h.  
Dynamic macroeconomic models; stochastic macroeconomics; time consistency equilibrium business cycle theory. Offered spring semesters. Prerequisites: ECON:5200.
- ECON:5300 Behavioral and Experimental Economics** 3 s.h.  
Overview of behavioral economics based on theoretical and empirical contributions; experimental methods and literature review. Provides working knowledge of experimental techniques and contributions.
- ECON:5800 Econometrics** 3 s.h.  
Statistical inference in single and multiple equation stochastic models, models with nonindependent or nonidentically distributed error structure, dynamic models; OLS, GLS, IV, ML estimation; asymptotic distribution theory; exact, asymptotic hypothesis tests. Prerequisites: STAT:4101.
- ECON:5805 Statistics for Economics** 3 s.h.  
Probability theory, transformations and expectations, common families of distributions, multiple random variables, properties of a random sample, point estimation, hypothesis testing.
- ECON:5810 Applied Econometrics** 3 s.h.  
Empirical problems; multiple linear regression, nonlinear regression, maximum likelihood, hazard functions, univariate and multivariate time series, flexible functional forms. Prerequisites: ECON:5800.
- ECON:5825 Theoretical Econometrics II** 2 s.h.  
Continuation of ECON:5815.
- ECON:5855 Applied Econometrics I** 2 s.h.  
Empirical problems; multiple linear regression, nonlinear regression, maximum likelihood, hazard functions, univariate and multivariate time series, flexible functional forms.
- ECON:5865 Applied Econometrics II** 2 s.h.  
Continuation of ECON:5855.

**ECON:6310 Industrial Organization 3 s.h.**

The firm, monopolistic competition, oligopoly and workable competition; industrial organization, nature of equilibrium under uncertainty. Prerequisites: ECON:5110.

**ECON:6320 Labor Economics 3 s.h.**

Problems and models, including intertemporal models of labor markets; uncertainty and labor market activity; retirement decisions, economic theories of fertility; economics of discrimination; job search models; economic models of unions; bargaining and strikes, public sector labor markets; determinants of income distribution; emphasis on empirical verification of theory. Prerequisites: ECON:5110 and (ECON:4800 or ECON:5800).

**ECON:6330 Graduate Health Economics 3 s.h.**

Examination of research on the production of health and health insurance with an emphasis on the research designs and applied econometric methods used in health economics research; overview of the literature in the field in preparation for students to conduct their own research in the field.

**ECON:6420 Macroeconomics III 3 s.h.**

Current research in macroeconomics; development of research topics with emphasis on theoretical and empirical analysis. Prerequisites: ECON:5110 and ECON:5800.

**ECON:6500 International Trade Theory 3 s.h.**

The theory of international trade, including basic models of international trade; capital and labor mobility and trade; protection of international trade; the political economy of international trade; empirical applications of international trade.

**ECON:6900 Contemporary Topics in Economics 3 s.h.**

Topics not offered in other courses.

**ECON:7000 Seminar in Economic Theory arr.****ECON:7010 Seminar in Economic Theory II arr.****ECON:7020 Seminar in Economics I 2 s.h.****ECON:7030 Seminar in Economics II 2 s.h.****ECON:7040 Seminar in Economics III 2 s.h.****ECON:7050 Seminar in Economics IV 2 s.h.****ECON:7870 Workshop in Microeconomics 1 s.h.****ECON:7880 Workshop in Macro and Monetary Economics 1 s.h.****ECON:7950 Readings in Economics arr.****ECON:7975 Thesis in Economics arr.****ECON:9100 Digital Economics 3 s.h.**

The gap between rapidly evolving technology and slower-moving human development will widen as exponential advances in artificial intelligence, robots, networks, analytics, and digitization have an increasing impact on society and the economy. Focus on three problems in moving toward a fully digitized economy: 1) the speed of adapting evolving technologies by individuals, firms, and organizations, 2) regulation by governments and international organizations, 3) the "digital divide" and inclusive growth; uses a combination of modeling, empirical evidence, and case studies. Prerequisites: MBA:8160.