

# 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?department=Economics>

**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 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** 3 s.h.

Statistical tools used in economic analysis; regression models; estimation and hypothesis testing; causal effects; application to economic data and questions; use of statistical software. 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.

Microeconomic analysis of labor markets with special emphasis on strategic personnel choices of the firm; labor supply decisions made by workers; labor demand decisions made by firms; labor market equilibrium; returns to education; hiring, job design, evaluation, and compensation. Prerequisites: ECON:1100.

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

Role of money and financial institutions in determining domestic and international income, employment, and prices. Prerequisites: ECON:1100 and ECON:1200.

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

Modern theories of international trade and investment; impact of tariffs and other restrictions on international trade; effects of export and production subsidies; free trade agreements; exchange rates and foreign exchange markets; international monetary arrangements; balance of payments; international economic policy. Prerequisites: ECON:1100.

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

Structural evolution; imperfect competition; resource allocation; development of public policy on monopoly; selected industries. Prerequisites: ECON:1100.

### **ECON:3355 Economic and Business Forecasting** 3 s.h.

Development and utilization of forecasts of business and economic variables; application of modern statistical methods and software to quantitative forecasting problems. 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.

Experimental economics has significantly changed how economists think about many issues; techniques of experimental economics and major applications of these techniques; how to run an economic experiment; four major areas of economics that have been fundamentally changed by experimental economics include individual decision-making, models of fairness and reciprocity, game theory and applications, and markets; student participation and presentations of student research projects. Prerequisites: ECON:1100.

- ECON:3380 Business and Government** 3 s.h.  
Examination of relationship between government, private sector, and citizenry; legal, regulatory, market, and civic context in which private sector functions; how business owners and entrepreneurs have shaped political and economic outcomes in the United States; central theme of exploring and understanding the nature of government policy, how policy affects businesses, and how policy affects societal welfare. 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.  
Economic functions of government in modern economies; effects of government expenditures and taxation on allocation of resources. 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 GEOG: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:1100 and ECON:1200.
- ECON:4140 Labor Economics** 3 s.h.  
Labor supply and demand; investments in human capital; compensating wage differentials; discrimination; long-term contracts; occupational choice; family decisions; unions; immigration. 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 and ECON:3150.
- 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 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.
- 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 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 and ECON:3150.
- ECON:4700 Topics in Analytical Economics** 3 s.h.  
Topics vary. Prerequisites: ECON:3150 and ECON:3100.
- ECON:4800 Econometric Analysis** 3 s.h.  
Linear regression models; causal effects; estimation and hypothesis testing; errors in variables; simultaneous equations; panel data; instrumental variables; limited dependent variables; emphasis on interpretation, methods, application of econometric modelling, and use of statistical software. 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 Economic Analysis II** 3 s.h.  
Behavior under uncertainty, macroeconomic models; dynamic programming, asset pricing, saving, consumption.
- ECON:5015 Dynamic Programming** 2 s.h.  
Finite- and infinite-horizon, discrete-time dynamic programming; discrete-time stochastic dynamic programming, including computational methods and some economic applications; continuous-time control theory.
- 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 nonexpected utility theory.
- ECON:5125 Game Theory** 2 s.h.  
Noncooperative and cooperative games, games of perfect and imperfect information, matching games.
- ECON:5135 General Equilibrium** 2 s.h.  
Walrasian equilibrium and its properties, welfare economics, general equilibrium and perfect competition, general equilibrium with externalities, general equilibrium under asymmetric information.
- ECON:5145 Information Economics** 2 s.h.  
Markets with asymmetric information, allocation mechanisms, mechanism design.
- 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:5215 Fundamentals of Macroeconomics I** 2 s.h.  
Infinite horizon endowment economies; neoclassical growth models and dynamic general equilibrium.
- ECON:5225 Fundamentals of Macroeconomics II** 2 s.h.  
Real business cycle models; overlapping generations models.
- ECON:5235 Fiscal Policy and Insurance in Macroeconomics** 2 s.h.  
Fiscal policies, optimal taxation, and endogenous growth; uncertainty and incomplete markets, limited commitment, private information.
- ECON:5245 Monetary Economics and Search Theory** 2 s.h.  
Introduction to monetary and financial economics; search theory and applications to labor and money markets.
- 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:5815 Theoretical Econometrics I** 2 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.
- 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:6350 Structural Methods in Econometrics 2 s.h.**

Introduction to structural econometric approaches which can be applied in labor economics, industrial organization, and elsewhere; theoretical frameworks used in this literature; identifying assumptions needed for model estimation and validation techniques; methods used for the estimation of structural models, including Maximum Likelihood, Method of Moments and simulation-based methods.

**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.