Economics

Interim Chair
• Barrett W. Thomas

Undergraduate major: economics (B.A., B.S., B.B.A.)
Undergraduate minor: economics
Graduate degrees: M.A. in economics; Ph.D. in economics
Faculty: https://tippie.uiowa.edu/people?department=Economics
Website: https://tippie.uiowa.edu/economics

Economics is the study of how societies allocate limited resources to achieve competing ends. Using both empirical and deductive methods, economists analyze incentives, constraints, organizational forms, and market forces to understand patterns of production, exchange, and consumption of goods and services. Economics treats diverse issues such as wealth and poverty, government expenditures and taxation, prosperity and depression, inflation and unemployment, relations between management and labor, economic growth, environmental protection, health care delivery, the war on drug abuse, free trade versus protectionism, U.S. competitiveness in international markets, and the quality of American education.

The Department of Economics offers degree programs for undergraduates and for graduate students. It also partners with the Departments of Philosophy, Political Science, and Sociology and Criminology to offer the undergraduate major in ethics and public policy, an interdisciplinary program administered by the Department of Philosophy (College of Liberal Arts and Sciences); see Ethics and Public Policy in the Catalog.

Special Seminar
Each year, the Department of Economics offers a seminar program that brings eminent economists from other universities and from government agencies to the University of Iowa campus. Presentations by department faculty members and students also are featured.

Courses for Nonmajors

Students in the College of Liberal Arts and Sciences may wish to use economics courses as part of other majors or the GE CLAS Core. The introductory courses ECON:1100 Principles of Microeconomics and ECON:1200 Principles of Macroeconomics are approved for the Social Sciences area of the GE CLAS Core; they introduce the field of economics and the specialized topics of upper-division courses. The intermediate theory courses ECON:3100 Intermediate Microeconomics and ECON:3150 Intermediate Macroeconomics provide a deeper foundation in the core theories and methods of the discipline. They serve as preparation for upper-division field courses or as terminal courses in an economics plan of study.

Coursework in economics relates to majors in many other fields. For example, political science majors could select ECON:3650 Policy Analysis; international studies majors, ECON:3345 Global Economics and Business; environmental policy and planning majors, ECON:3625 Environmental and Natural Resource Economics; pre-law students, ECON:3800 Law and Economics; and statistics majors, ECON:4800 Econometric Analysis.

Related Certificate

Transportation Studies

The Transportation Studies Program offers the Certificate in Transportation Studies. The program focuses on the varied and complex problems of transportation and on interdisciplinary approaches to addressing them. The Departments of Civil and Environmental Engineering, Industrial and Systems Engineering, Mechanical Engineering (College of Engineering), Economics (Tippie College of Business), and the School of Planning and Public Affairs (Graduate College) participate in the program.

The certificate is coordinated by the School of Urban and Regional Planning. See the Certificate in Transportation Studies (Graduate College) in the Catalog.

Programs

Undergraduate Programs of Study

Majors
• Major in Economics (Bachelor of Arts)
• Major in Economics (Bachelor of Science)
• Major in Economics (Bachelor of Business Administration)

Minor
• Minor in Economics

Graduate Programs of Study

Majors
• Master of Arts in Economics
• Doctor of Philosophy in Economics

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 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: B.B.A. 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: B.B.A. students cannot use this course for GE CLAS Core Social Sciences. GE: Social Sciences.
**ECON:1300 First-Year Seminar**  
3 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: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:1380 or MATH:1460 or MATH:1550 or MATH:1850 or 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:1380 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:1380 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 and ECON:1200.

**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).

**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. 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:3770 Urban Transportation**  
arr.  
Transportation in the urban market; urban transport modes, technologies, costs, pricing, and ways to develop and analyze urban policy in order to promote city livability and sustainability; development of urban transportation and transport operations in the U.S. and worldwide; urban transport policies, plans, and policy development processes; major urban transportation issues, investigation of possible means of attacking urban transportation issues. Prerequisites: ECON:1100. Same as URP:3360.

**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: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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON:3870</td>
<td>Federal Reserve Challenge</td>
<td>1 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:3875</td>
<td>Topics in Policy Economics</td>
<td>3 s.h.</td>
<td>Topics vary. Prerequisites: ECON:1100 and ECON:1200.</td>
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<tr>
<td>ECON:4050</td>
<td>Readings and Independent Study in Economics</td>
<td>arr.</td>
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<tr>
<td>ECON:4090</td>
<td>Natural Resource Economics</td>
<td>3 s.h.</td>
<td>Economics of natural resources; interaction between economic theory, empirical evidence, and public policy; land, water, fish, trees, minerals; externalities. Prerequisites: ECON:3100.</td>
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<tr>
<td>ECON:4110</td>
<td>International Economics</td>
<td>3 s.h.</td>
<td>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 and ECON:3150.</td>
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<tr>
<td>ECON:4140</td>
<td>Labor Economics</td>
<td>3 s.h.</td>
<td>Labor supply and demand; investments in human capital; compensating wage differentials; discrimination; long-term contracts; occupational choice; family decisions; unions; immigration. Prerequisites: ECON:3100.</td>
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<tr>
<td>ECON:4160</td>
<td>Public Sector Economics</td>
<td>3 s.h.</td>
<td>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.</td>
</tr>
<tr>
<td>ECON:4170</td>
<td>Monetary Economics</td>
<td>3 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:4180</td>
<td>Industrial Organization</td>
<td>3 s.h.</td>
<td>Market structure; effects of business practices, informational problems on market structure; appraisal of antitrust policies, government regulation of business. Prerequisites: ECON:3100.</td>
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<tr>
<td>ECON:4190</td>
<td>Mathematical Economics</td>
<td>3 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:4200</td>
<td>Game Theory</td>
<td>3 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:4700</td>
<td>Topics in Analytical Economics</td>
<td>3 s.h.</td>
<td>Topics vary. Prerequisites: ECON:3150 and ECON:3100.</td>
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<tr>
<td>ECON:4800</td>
<td>Econometric Analysis</td>
<td>3 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:4999</td>
<td>Honors Thesis in Economics</td>
<td>arr.</td>
<td>Independent research project supervised by economics faculty member; culminates in thesis required for honors in the major. Prerequisites: ECON:3100 and ECON:3150 and (ECON:3300 or ECON:4800).</td>
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<tr>
<td>ECON:5000</td>
<td>Economic Analysis I</td>
<td>3 s.h.</td>
<td>Basic metric topology, convex analysis, function spaces, measure theory and integration.</td>
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<tr>
<td>ECON:5005</td>
<td>Real Analysis for Economics</td>
<td>2 s.h.</td>
<td>Basic metric topology, convex analysis, function spaces, measure theory, and integration.</td>
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<tr>
<td>ECON:5010</td>
<td>Economic Analysis II</td>
<td>3 s.h.</td>
<td>Behavior under uncertainty, macroeconomic models; dynamic programming, asset pricing, saving, consumption.</td>
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<tr>
<td>ECON:5015</td>
<td>Dynamic Programming</td>
<td>2 s.h.</td>
<td>Finite- and infinite-horizon, discrete-time dynamic programming; discrete-time stochastic dynamic programming, including computational methods and some economic applications; continuous-time control theory.</td>
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<tr>
<td>ECON:5100</td>
<td>Microeconomics I</td>
<td>3 s.h.</td>
<td>Consumer choice theory, producer theory, choice under uncertainty, basic game theory. Offered fall semesters.</td>
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<tr>
<td>ECON:5110</td>
<td>Microeconomics II</td>
<td>3 s.h.</td>
<td>General equilibrium and welfare analysis, adverse selection, the principal-agent problem, social choice, mechanism design. Offered spring semesters. Prerequisites: ECON:5100.</td>
</tr>
<tr>
<td>ECON:5115</td>
<td>Fundamentals of Microeconomics</td>
<td>3 s.h.</td>
<td>Consumer theory, producer theory, partial equilibrium models, expected and nonexpected utility theory.</td>
</tr>
<tr>
<td>ECON:5125</td>
<td>Game Theory</td>
<td>2 s.h.</td>
<td>Noncooperative and cooperative games, games of perfect and imperfect information, matching games.</td>
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<tr>
<td>ECON:5135</td>
<td>General Equilibrium</td>
<td>2 s.h.</td>
<td>Walrasian equilibrium and its properties, welfare economics, general equilibrium and perfect competition, general equilibrium with externalities, general equilibrium under asymmetric information.</td>
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<tr>
<td>ECON:5145</td>
<td>Information Economics</td>
<td>2 s.h.</td>
<td>Markets with asymmetric information, allocation mechanisms, mechanism design.</td>
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<tr>
<td>ECON:5200</td>
<td>Macroeconomics I</td>
<td>3 s.h.</td>
<td>Economic growth, business cycles, money and inflation. Offered fall semesters.</td>
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<tr>
<td>ECON:5210</td>
<td>Macroeconomics II</td>
<td>3 s.h.</td>
<td>Dynamic macroeconomic models; stochastic macroeconomics; time consistency equilibrium business cycle theory. Offered spring semesters. Prerequisites: ECON:5200.</td>
</tr>
<tr>
<td>ECON:5215</td>
<td>Fundamentals of Macroeconomics I</td>
<td>2 s.h.</td>
<td>Infinite horizon endowment economies; neoclassical growth models and dynamic general equilibrium.</td>
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<tr>
<td>ECON:5225</td>
<td>Fundamentals of Macroeconomics II</td>
<td>2 s.h.</td>
<td>Real business cycle models; overlapping generations models.</td>
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<tr>
<td>ECON:5235</td>
<td>Fiscal Policy and Insurance in Macroeconomics</td>
<td>2 s.h.</td>
<td>Fiscal policies, optimal taxation, and endogenous growth; uncertainty and incomplete markets, limited commitment, private information.</td>
</tr>
<tr>
<td>ECON:5245</td>
<td>Monetary Economics and Search Theory</td>
<td>2 s.h.</td>
<td>Introduction to monetary and financial economics; search theory and applications to labor and money markets.</td>
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</table>
**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.