Economics

Chair
• John L. Solow

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?departments=169
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 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.

Undergraduate Economics Forum
Students are invited to join the undergraduate economics forum. The group sponsors programs to help students plan for careers or graduate study and holds social events, special lectures, and round-table discussions. It provides opportunities for students to meet other economics majors and department faculty members.

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.

Course work 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; mathematics and engineering majors, ECON:4190 Mathematical 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, Mechanical and Industrial Engineering, Economics, and Geographical and Sustainability Sciences and the School of Urban and Regional Planning 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.

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 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:2800 Statistics for Strategy Problems 3 s.h.
Continuation of STAT:1030; inferential statistics; simple and multiple linear regression; time series regression; use of statistical models to solve problems in business and economics. Prerequisites: (STAT:1030 or STAT:2010 or STAT:2020 with a minimum grade of B) or STAT:3100 or STAT:3101 or STAT:3120 or STAT:3510 with a minimum grade of B or STAT:4100 or BIOS:4120 or PSQF:4143 with a minimum grade of B) and (MATH:1380 or MATH:1460 or MATH:1550 or MATH:1850 or MATH:1860).

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:3250 American Economic History 3 s.h.
Prerequisites: (ECON:1100 and ECON:1200) or (ECON:1100 and HIST:1261). Same as HIST:3360.

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:2800 or ECON:3300 or ECON:4800 or MSCI:2800 or STAT:3200).

ECON:3370 Household Finance 3 s.h.
Application of micro- and macro-economic theory to economic decisions of families and households; practical and theoretical issues in income generation, spending and saving decisions, risk management, and asset allocation. Prerequisites: ECON:1100 and ECON:1200.

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:3790 Antitrust Economics  3 s.h.
Topics in federal antitrust policy; merger policy; monopolization, predatory pricing, collusion, vertical restrictions, resale price maintenance, enforcement; case law, economics literature. Prerequisites: ECON:3100 or LAW:8146.

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.

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.

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 and ECON:3150.

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.

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:4900 Academic Internship  arr.
Participation in approved internship program (e.g., Washington Center Internships).

ECON:4999 Honors Thesis in Economics  3 s.h.
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). Recommendations: completion of BUS:1999.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<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>
</tr>
<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>
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<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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<tr>
<td>ECON:5800</td>
<td>Econometrics</td>
<td>3 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:5805</td>
<td>Statistics for Economics</td>
<td>3 s.h.</td>
<td>Probability theory, transformations and expectations, common families of distributions, multiple random variables, properties of a random sample, point estimation, hypothesis testing.</td>
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<tr>
<td>ECON:5810</td>
<td>Applied Econometrics</td>
<td>3 s.h.</td>
<td>Empirical problems; multiple linear regression, nonlinear regression, maximum likelihood, hazard functions, univariate and multivariate time series, flexible functional forms. Prerequisites: ECON:5800.</td>
</tr>
<tr>
<td>ECON:5815</td>
<td>Theoretical Econometrics I</td>
<td>2 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:5825</td>
<td>Theoretical Econometrics II</td>
<td>2 s.h.</td>
<td>Continuation of ECON:5815.</td>
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<tr>
<td>ECON:5855</td>
<td>Applied Econometrics I</td>
<td>2 s.h.</td>
<td>Empirical problems; multiple linear regression, nonlinear regression, maximum likelihood, hazard functions, univariate and multivariate time series, flexible functional forms.</td>
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<tr>
<td>ECON:5865</td>
<td>Applied Econometrics II</td>
<td>2 s.h.</td>
<td>Continuation of ECON:5855.</td>
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<tr>
<td>ECON:6310</td>
<td>Industrial Organization</td>
<td>3 s.h.</td>
<td>The firm, monopolistic competition, oligopoly and workable competition; industrial organization, nature of equilibrium under uncertainty. Prerequisites: ECON:5110.</td>
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<tr>
<td>ECON:6320</td>
<td>Labor Economics</td>
<td>3 s.h.</td>
<td>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).</td>
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<tr>
<td>ECON:6350</td>
<td>Structural Methods in Econometrics</td>
<td>2 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:6420</td>
<td>Macroeconomics III</td>
<td>3 s.h.</td>
<td>Current research in macroeconomics; development of research topics with emphasis on theoretical and empirical analysis. Prerequisites: ECON:5110 and ECON:5800.</td>
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<tr>
<td>ECON:6500</td>
<td>International Trade Theory</td>
<td>3 s.h.</td>
<td>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.</td>
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<tr>
<td>ECON:6900</td>
<td>Contemporary Topics in Economics</td>
<td>3 s.h.</td>
<td>Topics not offered in other courses.</td>
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<tr>
<td>ECON:7000</td>
<td>Seminar in Economic Theory</td>
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<tr>
<td>ECON:7010</td>
<td>Seminar in Economic Theory</td>
<td>arr.</td>
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<tr>
<td>ECON:7020</td>
<td>Seminar in Economics I</td>
<td>2 s.h.</td>
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<tr>
<td>ECON:7030</td>
<td>Seminar in Economics II</td>
<td>2 s.h.</td>
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<tr>
<td>ECON:7040</td>
<td>Seminar in Economics III</td>
<td>2 s.h.</td>
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<tr>
<td>ECON:7050</td>
<td>Seminar in Economics IV</td>
<td>2 s.h.</td>
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<tr>
<td>ECON:7870</td>
<td>Workshop in Microeconomics</td>
<td>1 s.h.</td>
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<tr>
<td>ECON:7880</td>
<td>Workshop in Macro and Monetary Economics</td>
<td>1 s.h.</td>
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<tr>
<td>ECON:7950</td>
<td>Readings in Economics</td>
<td>arr.</td>
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