

Economics

Introduction

Economics is the study of how individuals and societies manage their scarce resources—people must decide how much they work, what they buy, how much they save, and how they use their leisure time. Most societies use decentralized markets as the primary means of allocating resources, so economics gives students insight into how markets function in coordinating the activities of many diverse buyers and sellers. Economics also analyzes the trends and forces that affect the economy as a whole, including growth in average income, the portion of the labor force that cannot find work, and the rate at which prices are rising or falling. A major in economics provides excellent preparation for graduate and professional school, including law school, and for rewarding careers in consulting, finance, and other private and public sector employment. The Department of Economics offers course work in a variety of topics including microeconomic theory, macroeconomic theory, financial economics, money and banking, public finance, labor economics, international economics, economic development, game theory, and econometrics.

Note: Throughout the listing of major requirements, minor requirements, and course prerequisites, any course may be replaced by the honors equivalent. Course prerequisites are strictly enforced. Students interested in preparing for graduate study in economics should take M211 or M213, rather than M119, and consult with the department's undergraduate advisor regarding additional recommended mathematics courses.

Contact Information

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Major in Economics

Purpose

The core of the economics major focuses on providing an understanding of how microeconomic theory, macroeconomic theory, statistics, and mathematical modeling can be used to analyze and guide the decisions of business firms, consumers, and public-policy makers in a variety of market settings. Elective courses add breadth and depth to students' understanding of the basic tools of economic analysis by focusing on their application within specific subfields.

Required Courses

1. Mathematics: M118 and either M119 or M211
2. Statistics: E370
3. Introductory economics: E201 and E202
4. Intermediate economic theory: E321 and E322
5. Economics electives: At least four additional economics courses (12 credit hours) at the 300 or 400 level, excluding E496 and Y398. At least three of the elective courses (9 credit hours) must be numbered above E322, and at least two of these three courses (6 credit hours) must be taken in residence on the Bloomington campus.
6. A total of at least 27 credit hours of economics.
Students must also complete all degree requirements of the College of Arts and Sciences.

Minor in Economics

Required Courses

Students must meet the following course requirements for a total of 18 credit hours.

1. Mathematics: M119 or M211
2. Introductory economics: E201 and E202
3. Intermediate economic theory: E321
4. Economics electives: At least two additional economics courses (6 credit hours) at the 300 or 400 level, excluding E496 and Y398. At least one of these elective courses (3 credit hours) must be numbered above E321, excluding E370.
5. A total of at least 15 credit hours of economics, of which at least 9 credit hours must be taken in residence on the Bloomington campus.

Interdepartmental Major in Economics and Mathematics

Required Courses

The interdepartmental major in economics and mathematics is designed to enable students to model economic questions mathematically, and to analyze and solve those models.

Students must meet the following course requirements. Any course may be replaced by the honors equivalent.

1. Economics: E201, E202, E321, E322 and at least three additional economics courses numbered above E322, including at least one at the 400 level. E370, E496, and Y398 cannot be used to meet this requirement.
2. Mathematics: M211-M212 or M213, M301 or M303, M311 and at least two courses, including one at the 400 level, from one of the following mathematics areas: analysis (M312, M413, M414, M415, M420); differential equations (M343, M344, M441, M442); applied mathematics (M371, M447, M448, M451, M471, M472); or probability and statistics (M366*, M463, M464, M466).
3. Statistics: the sequence Mathematics M360-M366, or Economics E370, or Mathematics M365.

***Note:** M366 has a prerequisite of M360; see requirement 3 below. For students who qualify for honors, Mathematics S499 may replace the second course in a mathematical area with approval of the Department of Mathematics.

Special Considerations

1. No more than 3 credit hours of Honors Thesis (Economics E499 or Mathematics S499) may be counted toward the major.
2. It is recommended that students planning to pursue a Ph.D. in economics consult with the Department of Economics concerning classes in the areas of analysis, econometrics, and statistics.
3. It is recommended that students in actuarial studies take Mathematics M360, M366, M371, M463, M464, and one course from M466 or Economics E471. It is recommended that these students also consult with the Department of Economics concerning relevant seminar courses. Students should consult the actuarial studies section of the Department of Mathematics entry in this Bulletin.
4. Students must also complete all degree requirements of the College of Arts and Sciences.

Interdepartmental Major in Economics and Political Science

Purpose

The interdepartmental major in economics and political science explores important issues arising in both the public and private sectors and provides students with the basic theoretical tools necessary to investigate these issues.

Note: Any economics course may be replaced by the honors equivalent.

Requirements

Students must meet the following course requirements for a total of 42 credit hours in Political Science and Economics.

1. Mathematics requirements: Finite Mathematics M118 and either Calculus M119 or M211 (These courses do not count toward the 42 credit hours required for the major.)
2. At least 18 credit hours in economics to include the following: E201, E202, and E321; at least three additional economics courses (9 credit hours) at the 300 or 400 level, excluding E370, E496 and Y398. At least two of these three courses (6 credit hours) must be numbered above E321.
3. At least 18 credit hours in political science to include the following: one course chosen from Political Science Y204, Y205, Y210, Y303, Y394, or Y405; another 15 credit hours in political science chosen from Y200, Y202, Y204, Y205, Y210, Y301-Y308, Y326, Y343, Y346, Y349, Y350, Y376, Y394, Y401, Y405, Y481, Y490, or Y499. (Y200 or Y401 may be repeated once for credit, for a maximum of 9 credit hours possible for these two courses. No other courses may be repeated for credit.)
4. Statistics requirement: ECON E370 or POLS Y395.

Special Considerations

1. Students meeting requirements 1–4 above with a total of 39 credit hours will be allowed to use 3 credit hours toward the major from preapproved sections of COLL C104 (Critical Approaches to the Arts and Sciences) courses. A list of preapproved sections of COLL C104 (Critical Approaches to the Arts and Sciences) is available each semester in the Departments of Economics and Political Science.
2. No more than 6 credit hours of honors thesis credit (3 credit hours from Economics E499, and 3 credit hours from Political Science Y499) may be counted toward the major.
3. A maximum of 3 credit hours of Political Science Y484 (for teaching interns only) may be counted toward the major.
4. Students must also complete the degree requirements in the College of Arts and Sciences.

Interdepartmental Minor in Economics and Political Science

Purpose

The interdepartmental minor in political science and economics introduces students to important issues in both the public and private sectors.

Requirements

Students must meet the following course requirements for a total of 18 credit hours.

1. Economics E201, E202, and one additional economics course at the 300 or 400 level (9 credit hours), excluding E370, E496, and Y398.
2. One course (3 credit hours) chosen from Political Science Y204, Y205, Y210, Y303, Y394, or Y405.
3. Another 6 credit hours in political science in courses not used in number 2 above chosen from Y200, Y202, Y204, Y205, Y210, Y301–Y308, Y326, Y343, Y346, Y349, Y350, Y376, Y394, Y401, Y405, Y481, Y490, or Y499. (Y200 or Y401 may be repeated for credit for a maximum of 9 credit hours total of those two courses. No other courses may be repeated for credit.)

Note: This minor is not available to students choosing a major in economics or political science. The interdepartmental minor in Political Science and Economics is also not available to students choosing a minor in political science or a minor in economics.

Honors Program in Economics

Requirements for a B.A. with honors in economics are:

1. Economics GPA of 3.500 or higher and a cumulative GPA of 3.300 or higher upon graduation.
2. At least 6 credits in economics courses numbered E390 through E490.
3. Completion of 3 credits of E499 Honors Thesis with a grade of B or higher. Honors thesis research topics must be approved by an economics faculty mentor and the director of undergraduate studies. The thesis topic should be approved prior to the beginning of the semester in which E499 enrollment occurs. Contact the undergraduate advisor in economics for an E499 enrollment-request form.

Course Descriptions

ECON–E 201 Introduction to Microeconomics (3 cr.) CASE S&H Scarcity, opportunity cost, competitive and non-competitive market pricing, and interdependence as an analytical core. Individual sections apply this core to a variety of current economic policy problems, such as poverty, pollution, excise taxes, rent controls, and farm subsidies. I Sem., II Sem., SS.

ECON–E 202 Introduction to Macroeconomics (3 cr.) CASE S&H P: E201. Measuring and explaining aggregate economic performance, money, monetary policy, and fiscal policy as an analytical core. Individual sections apply this core to a variety of current economic policy problems, such as inflation, unemployment, and economic growth. I Sem., II Sem., SS.

ECON–S 201 Introduction to Microeconomics: Honors (3 cr.) CASE S&H Honors course. Designed for students of superior ability. Covers same core materials as E201 and substitutes for E201 as a prerequisite for other courses. I Sem.

ECON–S 202 Introduction to Macroeconomics (3 cr.) CASE S&H P: S201 or E201. Honors course. Designed for students of superior ability. Covers same core material as E202 and substitutes for E202 as a prerequisite for other courses. II Sem.

ECON–E 303 Survey of International Economics (3 cr.) CASE S&H P: E201 and E202. Basis for and effects of international trade, commercial policy and effects of trade restrictions, balance of payments and exchange rate adjustment, international monetary systems, and fixed versus flexible exchange rates. Not recommended for economics majors. Only 6 credit hours from E303, E331, and E332 may be counted toward a major in economics.

ECON–E 305 Money and Banking (3 cr.) CASE S&H P: E201 and E202. Monetary and banking system of the U.S. The supply and control of money. The impact of money on the U.S. economy. Topics in the application of Federal Reserve monetary policy. Analytical treatment of the Federal Reserve system and the commercial banking industry.

ECON–E 308 Survey of Public Finance (3 cr.) CASE S&H P: E201 and E202. Major elements of taxation and public expenditures. Not recommended for economics majors. Only 6 credit hours from E308, E361, and E362 may be counted toward a major in economics.

ECON–E 309 Topics in Economics (3 cr.) CASE S&H P: E201 and E202. Study of a topic area in economics. Topics will vary. Intended primarily for non-majors wanting exposure to economics beyond the introductory level. May be repeated with different topics for a maximum of 9 credit hours. May be repeated with different topics for a maximum of 9 credit hours. Only 3 credit hours may count toward the major or minor in economics.

ECON–E 321 Intermediate Microeconomic Theory (3 cr.) CASE S&H P: E201 and MATH-M 119 or M211. The economics of consumer choice. The economics of production, cost minimization, and profit maximization for business firms in the short run and long run under various market structures. Competition and adjustment to market equilibrium. Introduction to game theory, strategic interaction, and noncooperative equilibria. Credit given for only one of E321 or S321.

ECON-S 321 Intermediate Microeconomic Theory: Honors (3 cr.) CASE S&H P: E201 and MATH M119 or M211. Honors course. Designed for students of superior ability. Covers same core material as E321 and substitutes for E321 as a prerequisite for other courses. Credit given for only one of E321 or S321.

ECON-E 322 Intermediate Microeconomic Theory (3 cr.) CASE S&H P: E202 and E321. National income accounting; theory of income, employment, and price level. Countercyclical and other public policy measures.

ECON-S 322 Intermediate Macroeconomic Theory: Honors (3 cr.) CASE S&H P: E202 and E321. Honors course. Designed for students of superior ability. Covers same core material as E322 and substitutes for E322 as a prerequisite for other courses. Credit given for only one of S322 or E322.

ECON-E 327 Game Theory (3 cr.) CASE S&H P: E321. Mathematical analysis of strategic interaction. Noncooperative games played once or repeatedly, with perfect or imperfect information. Necessary condition for a solution (equilibrium) as well as sufficient conditions (refinements). Cooperative games, such as bargaining and market games. Numerous applications, including experimental games.

ECON-E 331 International Trade (3 cr.) P: E321. Theories of trade pattern, positive and normative aspects of trade and trade-related policies in competitive and non-competitive markets; effects of trade liberalization and economic integration; trade policies by developed and developing nations; international factor movements. Only 6 credit hours from E303, E331, and E332 may be counted toward a major in economics.

ECON-E 332 International Monetary Economics (3 cr.) P: E322. Theory of exchange rate and balance of payments adjustment, macroeconomic policy in open economies, history and comparison of international monetary systems, and proposals for reform. Credit given for only one of E332 and E433. Only 6 credit hours from E303, E331, and E332 may be counted toward a major in economics.

ECON-E 337 Economic Development (3 cr.) P: E321. Characteristics of economically underdeveloped countries. Obstacles to sustained growth; planning and other policies for stimulating growth; examination of development problems and experience in particular countries.

ECON-E 341 Economics of Labor Market (3 cr.) P: E321. R: E370. Analysis of the functioning of labor markets with theoretical, empirical, and policy applications in determination of employment and wages in the U.S. economy.

ECON-E 344 Health Economics (3 cr.) P: E321. R: E370 or equivalent is strongly recommended. Systematic introduction to health economics and economics of health care, emphasis on basic economic concepts such as supply and demand, production of health, information economics, choice under uncertainty, health insurance markets, Medicare and Medicaid, managed care, government intervention and regulation. Survey course with some topics in some depth.

ECON-E 351 Law and Economics (3 cr.) P: E321. Devoted to economic analysis of law, focusing on the economic efficiency of common law. Main components of the course are property law, contracts, and torts; some aspects of criminal law are also covered. Discussion is based mostly on examples, both invented and taken from actual cases.

ECON-E 361 Public Finance: Government Spending (3 cr.) P: E321. Theory of public goods and externalities. Cost-benefit analysis. Public choice theory. Analysis of specific expenditure, transfer, and regulatory programs. Only 6 credit hours from E308, E361, and E362 may be counted toward a major in economics.

ECON-E 362 Public Finance: Taxation (3 cr.) P: E321. U.S. tax structure, income redistribution effects, and efficiency in resource allocation. Use of welfare theory and microeconomic models to evaluate particular issues. Only 6 credit hours from E308, E361, and E362 may be counted toward a major in economics.

ECON-E 364 Environment and Resource Economics (3 cr.) CASE S&H P: E321. Basic theory of common property resources applied to environment and resource conservation problems. Topics include economic efficiency, equity, measurement problems, and policy formulation.

ECON-E 370 Statistical Analysis for Business and Economics (3 cr.) CASE N&M P: E201 and MATH M118 or similar course emphasizing probability concepts. R: MATH M119 and E202. Lectures emphasize the use of basic probability concepts and statistical theory in the estimation and testing of single parameter and multivariate relationships. In computer labs, using Microsoft Excel, each student calculates descriptive statistics, probabilities, and least squares regression coefficients in situations based on current business and economic events. Credit given for only one of E370 or S370, ANTH A306, CJUS K300, MATH K300 or K310, POLS Y395, PSY K300 or K310, SOC S371, STAT K310 or S300, or SPEA K300. I Sem., II Sem., SS.

ECON-S 370 Statistical Analysis for Business and Economics: Honors (3 cr.) CASE N&M P: E201 and MATH-M 118 or similar course emphasizing probability concepts. R: MATH-M 119 and E202. Honors course. Lectures emphasize the use of basic probability concepts and statistical theory in the estimation and testing of single parameter and multivariate relationships. In computer labs, using Microsoft Excel, each student calculates descriptive statistics, probabilities, and least squares regression coefficients in situations based on current business and economic events. Credit given for only one of S370 or E370, ANTH A306, CJUS K300, MATH K300 or K310, POLS Y395, PSY K300 or K310, SOC S371, STAT K310 or S300, or SPEA K300. I Sem., II Sem., SS.

ECON-E 385 Economics of Industry (3 cr.) P: E321. Empirical analysis of market structure and behavior. Location, technology, economies of scale, vertical integration, conglomerates, barriers to entry, and competitive practices. Economic assessment of product performance and environmental impact.

ECON–E 386 Soviet-Type Economies in Transition (3 cr.) P: E321. Economic institutions, resource allocation mechanisms, incentives and decision-making in a Soviet-type economy; economics of transition to a market-oriented system. Particular attention is paid to price liberalization, development of the financial system, privatization of state-owned assets, opening to the world economy, and the role of private sector. Credit given for only one of E386 or E497.

ECON–E 390 Undergraduate Seminar in Economics (3 cr.) P: E321. Additional prerequisites may be required depending on the seminar topic. Intensive study of a topic area in economics. Topics will vary. May be repeated with different topics for a maximum of 9 credit hours.

ECON–E 391 Independent Research in Economics (1–3 cr.) P: E321, E322, E370; undergraduate economics major or interdepartmental major (ECON/POLS or ECON/MATH); minimum 3.000 economics GPA. Additional prerequisites may be required by the faculty mentor. Independent readings and research by special arrangement with an economics faculty mentor and the director of undergraduate studies. A research paper or other substantial writing assignments are usually required. A maximum of 3 credit hours in E391 may count toward the major in economics.

ECON–E 425 Financial Economics (3 cr.) P: E321 and E370. Theory and empirical evidence relevant to understanding the functioning of modern financial-asset markets. Course topics may vary substantially by instructor. Some examples include: present value, analysis of risk and return, asset pricing, modern portfolio theory, equilibrium in asset markets, arbitrage pricing theory, the capital asset pricing model, the efficient markets hypothesis, price bubbles and crashes, futures markets, derivative securities and option pricing models.

ECON–E 427 Seminar in Experimental Economics (3 cr.) P: E321 and E370 or consent of instructor. R: E327. Focuses on the use of laboratory experimental methods in applied microeconomics. Specific application areas will include the analysis of resource allocation mechanisms for both private and public goods and individual choice under uncertainty using both human and nonhuman subjects.

ECON–E 471 Econometric Theory and Practice I (3 cr.) P: E370 and either MATH M119 or M211. Emphasis is on the classical linear regression model and its applications. Special topics include finite and asymptotic properties of least squares, hypothesis testing, model specification, dummy variables, proxies, multicollinearity and heteroscedasticity. Several software packages are used in computer lab applications.

ECON–E 472 Econometric Theory and Practice II (3 cr.) P: E471. Emphasis is on the various extensions of the classical linear regression model such as multiple equations, limited dependent variables, time-series and panel data models using economic and business data. Special topics include instrumental variables, stationary and nonstationary data, fixed and random effects models, probit/logit, censored regression and sample selection. Several software packages are used in computer lab applications.

ECON–E 490 Advanced Undergraduate Seminar in Economics (3 cr.) P: E321. Additional prerequisites may be required depending on the seminar topic. Advanced intensive study of a topic area in economics. Topics will vary. May be repeated with different topics for a maximum of 9 credit hours.

ECON–E 496 Foreign Study in Economics (3–8 cr.) CASE S&H P: Consent of chairperson. Course involves planning of research project during year preceding summer abroad. Time spent in research abroad must amount to at least one week for each credit hour granted. Research must be presented by end of semester following foreign study. Does not count toward a major or minor in economics. May be taken once only.

ECON–E 499 Honors Thesis (3 cr.) P: E321, E322, and E370; undergraduate economics major or interdepartmental major (ECON/POLS or ECON/MATH); minimum 3.300 economics GPA. Additional prerequisites may be required by the faculty mentor. Honors course. Honors thesis research by special arrangement with an economics faculty mentor and the director of undergraduate studies. A maximum of 3 credit hours in E499 may count toward the major in economics.

ECON–Y 398 Internship in Economics (1–3 cr.)

P: Departmental approval required. Supervised work experience in an academic or business environment, including as a teaching assistant for undergraduate classes. Performance evaluation by a faculty mentor. Does not count toward a major or minor in economics. May be repeated for a maximum of 3 credit hours.