ECONOMICS

ECO 301-B Basic Computational Methods in Economics
A first course in the computational and graphical techniques for finding numerical solutions to the economic models presented in undergraduate courses. Includes the foundations of programming (using BASIC), data management, Newton’s method for solving nonlinear equations, exploring and fitting functions graphically, and finding maxima and minima of functions.
Prerequisite: C or higher in ECO 303
4 credits

ECO 316-K U.S. Class Structure and Its Implications
Investigation of the economic foundations of social class in the U.S. and connections among class, race, and gender. Consideration of both theoretical and empirical strategies to understand the working class, the middle class, and the capitalist class in contemporary U.S. society, including the implications of class analysis for social issues such as government economic policy formation, the “underclass” and welfare reform, globalization, living standards, the distributions of income and wealth, and economic ethics.
Prerequisite: C or higher in ECO 108
3 credits

ECO 317 Marxist Political Economy
An analysis of capitalism as a social system of production and exchange, based on the economic writings of Karl Marx and others working in that broad tradition. The course begins with an introduction of Marx’s philosophical method, dialectical materialism, and applies this method to the historical development of capitalism and the operation of the modern capitalist economy. The course explores the economic, social, and political implications of capitalism for the U.S. economy, is explored. A brief introduction to anti-trust policy and regulatory policy is included.
Prerequisite: C or higher in ECO 303
3 credits

ECO 320 Mathematical Statistics
An introduction to statistical methods and their properties that are useful in analysis of economic data. Topics include elements of probability theory and its empirical applications, univariate and multivariate distributions, sampling distributions, limiting distributions, and point and interval estimation. Regular problem sets and occasional projects are required. Not for credit in addition to ECO 310.
Prerequisites: C or higher in ECO 108; C or higher in MAT 122 or MAT 123 or AMS 151 or placement level 4 on the mathematics placement examination
4 credits

ECO 321 Econometrics
The application of mathematical and statistical methods to economic theory. Topics include the concept of an explanatory economic model, multiple regression, hypothesis testing, simultaneous equation models, and estimating techniques. Emphasis is placed on the application of economic statistics.
Prerequisites: C or higher in ECO 320 or AMS 310; C or higher in ECO 108
4 credits

ECO 322 Applied Microeconomics
Exploration of the connection between economic theory and its applications, with a special emphasis on the use of econometric techniques. Real-life examples are used to examine how computer software and the internet allow us to better understand a problem, analyze a question, or find an answer. Computers are used extensively to learn about financial and business decisions, economic models, and econometric methodology. Models of inter-temporal choice, investment, investment under uncertainty, migration, retirement, housing decisions, economics of regulation, education, financial options, and many others are explored with real examples, often with real data and econometric tools. Students are expected to consult many sources and think analytically for problem sets, exams, and in class.
Prerequisites: C or higher in ECO 303; C or higher in ECO 320 or AMS 310
Advisory Prerequisite: ECO 321
4 credits

ECO 325 International Economics
Economic theory of international trade, protection, mercantilist policy, customs unions, capital movements, and international finance.
Prerequisite: C or higher in ECO 303
3 credits

ECO 326 Industrial Organization
A study of the structure of firms and markets and interactions between them. Price theory, strategic theory, and transaction costs analysis are used to illuminate the sources of and limitations on market power of firms. Some empirical evidence drawn primarily from the U.S. economy, is explored. A brief introduction to anti-trust policy and regulatory policy is included.
Prerequisite: C or higher in ECO 303
3 credits

ECO 327-F Health Economics
An application of microeconomics to the health sector of the economy. Topics include the demand for health care; the roles of hospitals, physicians, and HMOs in the supply of health care; the role of the government in the provision of health care; and the determinants of health care costs.
Prerequisite: C or higher in ECO 303
3 credits

ECO 328-F Regional Economics
An examination of the major theories of economic structure within a spatial context. Special attention is paid to economic growth within a spatial world, migration of firms and resources across space, the empirical modeling of these processes, and regional economic modeling. Topics include expert base theory, input-output modeling, social accounting matrices (SAMs), computable general equilibrium models (CGEs), and regional economic and conjunct models.
Prerequisite: C or higher in ECO 303
3 credits

ECO 329 Urban Economics
Construction of models to explain aspects of cities, including existence, dynamics, and land use patterns. Concepts include Lorenz curve, externalities, tipping points, bid-rent curves, and separation of economic activities. Uses algebra, pre-calculus, graphing, and calculators. Computer spreadsheets and scientific hand calculators used.
Prerequisite: C or higher in ECO 303
Advisory Prerequisite: MAT 131
3 credits
**ECO 334-J Demographic Economics of Developing Countries**
Problems related to both economics and demography. In scope, the material deals with both contemporary and historical situations in developing countries. Microeconomic aspects of the course concern fertility, marriage, divorce, and migration; macroeconomic aspects concern the implications for growth and development of various patterns of population increase. 
**Prerequisites:** C or higher in ECO 320 or AMS 310; C or higher in ECO 303 and 305 
3 credits

**ECO 335 Economic Development**
An examination of problems and aspects facing developing countries in the transition from traditional, predominantly rural economic systems to modern, largely urban-oriented economies. Theories of economic growth and development are presented in the light of the actual experience of developing countries. 
**Prerequisites:** C or higher in ECO 303; MAT 126 or 131 or 141 or AMS 151 
3 credits

**ECO 337 Labor Theory**
Microeconomic theory is used to investigate specific topics in the field of labor economics. Areas to be covered include the household's decision-making process and the supply of labor, investments in human capital and discrimination in the marketplace, the effect of market structure on the demand for labor, and the distribution of income. 
**Prerequisite:** C or higher in ECO 303 
3 credits

**ECO 339-J China's Economy Since 1949**
Economic development policies in the People's Republic of China from the revolution in 1949 to the present. Topics include agricultural and industrial organization, population policies, sectoral balances, foreign trade, and efforts to reconcile planning with market forces. 
**Prerequisite:** C or higher in ECO 108 
**Advisory Prerequisite:** C or higher in ECO 305 
3 credits

**ECO 345 Law and Economic Issues**
An application of economic issues to major fields of law to study their effects on market and non-market behavior. The consequences that laws may have on the realization of efficient outcomes as well as an exploration of the legal process from an economic perspective, are emphasized. 
**Prerequisite:** C or higher in ECO 303 
3 credits

**ECO 348 Analysis for Managerial Decision Making**
Development of analytical techniques (such as linear programming and statistical decision theory) for making economic decisions, both in public and private enterprises. The student makes decisions on large-scale and detailed cases in realistic managerial situations and is introduced to the use of the computer. May not be taken for credit after BUS 249. Not for credit in addition to the discontinued BUS 349. 
**Prerequisite:** C or higher in ECO 303 
1 credit

**ECO 351, 352, 353, 354 Special Topics in Economics**
Semester supplements to this Bulletin contain specific descriptions when the course is offered. May be repeated for credit as the topic changes. 
**Prerequisites:** U3 or U4 standing; additional prerequisites announced with topic 
3 credits per course

**ECO 355 Game Theory**
Introduction to game theory fundamentals with special emphasis on problems from economics and political science. Topics include strategic games and Nash equilibrium, games in coalition form and the core, bargaining theory, measuring power in voting systems, problems of fair division, and optimal and stable matching. This course is offered as both AMS 335 and ECO 355. 
**Prerequisites:** MAT 125 or 131 or 141 or AMS 151; C or higher in ECO 303 
3 credits

**ECO 356, 357 Special Topics in Economics**
Semester supplements to this Bulletin contain specific description when course is offered. May be repeated for credit as the topic changes. 
**Prerequisites:** U3 or U4 standing; additional prerequisites announced with topic 
3 credits per course

**ECO 358-J Topics in Developing Economies**
Semester supplements to this Bulletin contain specific description when course is offered. Topics may include titles such as The Economics of India and Chinese Economic Development. Designed for upper-division students, this course provides an in-depth study of a specific topic relating to non-Western world civilizations. Students will be expected to demonstrate either a knowledge of a broad outline of world history, or the distinctive features of the history, institutions, economy, society, and culture of one non-Western civilization. May be repeated for credit as the topic changes. 
**Prerequisites:** U3 or U4 standing; additional prerequisites announced with topic 
3 credits per course

**ECO 360 Money and Banking**
An introduction to modern monetary institutions and mechanisms, their relationship to the economy, and governmental policies in this area. 
**Prerequisite:** C or higher in ECO 108 
3 credits

**ECO 362 Financial Economics**
An analysis of financial decision making inside the corporation, covering topics such as the choice of the dividend policy, the choice between equity and debt, and the interaction between financing and investment decisions. We will also look at how market imperfections, in particular the existence of informational differences between managers and investors, influence the performance of corporations. Finally, we study the optimal policies to cope with market imperfections. 
**Prerequisites:** C or higher in ECO 303 and 320 
3 credits

**ECO 373-H Economics of Environment and Natural Resources**
Analysis of economic policies designed to deal with environmental problems. Issues involving the management of renewable and exhaustible resources such as timber and oil as well as the advantage of market-based solutions over the conventional demand approach are discussed. 
**Prerequisite:** C or higher in ECO 303 
3 credits

**ECO 383 Public Finance**
Theories of taxation and the satisfaction of public wants; the nature of public goods; theory of public expenditure; effects of taxes on resource allocation and welfare; theories of tax incidence; fiscal and equity implications of alternative tax schemes; fiscal dynamics and growth; intergovernmental fiscal relations. 
**Prerequisites:** C or higher in ECO 303 and 305 
3 credits

**ECO 389 Corporate Finance**
Introduction to the main concepts and problems confronted by financial managers in the corporate world. Development and application of tools and methods for financial decision-making and analysis, including discounting and present value; asset valuation; investment criteria; risk and return; risk management; cost of capital; debt and dividend policies; international financial management. 
**Prerequisite:** C or higher in ECO 203 
**Advisory Prerequisite:** C or higher in ECO 305 
3 credits

**ECO 475, 476 Undergraduate Teaching Practica I, II**
Work with a faculty member as an assistant in one of the faculty member's regularly scheduled classes. The student is required to attend all the classes, do all the regularly assigned work and meet with the faculty member at regularly scheduled times to discuss the intellectual and pedagogical matters relating to the course. In ECO 476, students assume greater responsibility in such areas as leading discussions and analyzing results of tests that have already been graded. Students may not serve as teaching assistants in the same course twice. 
**Prerequisites:** to ECO 475. Permission of instructor and department 
**Prerequisites:** to ECO 476. C or higher in ECO 475; permission of instructor and department 
3 credits per course, S/U grading

**ECO 487 Independent Research in Economics**
An independent project, developed out of advanced coursework in economics, designed in consultation with and supervised by a faculty member. The project should be formulated before the start of the semester in which the research will be done and should culminate in a substantial written paper. May be repeated. 
**Prerequisites:** At least one upper-division ECO course that forms the basis of research; permission of supervising faculty member 
0-6 credits

**ECO 488 Internship in Economics**
An independent research project undertaken in the context of a work environment that provides students with access to data, people, and experience that make possible the study of a particular economic issue. Related readings, a daily journal, and an analytical paper under the supervision of a faculty member are required. Permission must be obtained before the start of the semester in which the student enrolls in ECO 488. May be repeated up to a limit of 12 credits, but only counts as one course toward major requirements. 
**Prerequisites:** C or higher in ECO 303 and 305; permission of supervising faculty member, Career Center Internship Manager, and sponsoring employing agency 
0-6 credits, S/U grading