Course Descriptions

ECO Economics

ECO 108-F Introduction to Economics
An introduction to economic analysis. Microeconomics (the study of individual, firm, industry, and market behavior) and macroeconomics (the study of the determination of national income, employment, and inflation). Pre-requisite: C or higher in MAT 122 or MAT 123 or AMS 151 or level 4 on the mathematics placement examination 4 credits

ECO 301-H Sustainability of the Long Island Pine Barrens
The ecologically diverse Long Island Pine Barrens region provides a habitat for a large number of rare and endangered species, but faces challenges associated with protection of a natural ecosystem that lies in close proximity to an economically vibrant urban area that exerts intense development pressure. In this course we will consider the interaction of the ecological, developmental and economic factors that impact the Pine Barrens and the effectiveness of decision support systems in promoting sustainability of the Pine Barrens. This course is offered as BIO 301, GEO 301, ECO 301, and ESG 301. Pre-requisites: BIO 201 or ECO 108 or GEO 101 or 102 or ESG 100 or ESG 196 or CHE 131; and upper division status 3 credits

ECO 303-F Intermediate Microeconomic Theory
Analytical study of the behavior of fundamental economic units (consumer and the firm) and its implications for the production and distribution of goods and services. Emphasis on the use of economic theory to provide explanations of observed phenomena, including the analytical derivation of empirically verifiable propositions. Pre-requisite: 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 305-F Intermediate Macroeconomic Theory
The theory of national income determination, employment, distribution, price levels, inflation, and growth. Keynesian and classical models of the different implications of monetary and fiscal policy. Pre-requisites: 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 310 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 of functions. Pre-requisite: 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. Pre-requisite: 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 examination of Marx’s philosophical method, dialectical materialism. Course applies this method to the historical development of capitalism and the operation of the modern capitalist economy. The course explores connections between economic power and political, cultural, and ethical issues. Pre-requisite: C or higher in ECO 108 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 application, 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 AMS 310. Pre-requisites: 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 econometric studies. Pre-requisites: C or higher in ECO 320 or AMS 310; C or higher in ECO 108 4 credits

ECO 323 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 answers. Computers are used intensively to learn about financial and business decisions, economic models, and econometric methodology. Models of inter-temporal choice, investment, interest rate, and 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. Pre-requisites: C or higher in ECO 303; C or higher in ECO 320 or AMS 310; Advisory Pre-requisite: ECO 321 4 credits

ECO 325 International Economics
Economic theory of international trade, protection, commercial policy, customs unions, capital movements, and international finance. Pre-requisite: 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 antitrust policy and regulatory policy is included. Pre-requisite: C or higher in ECO 305 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 detriments of health care costs. Pre-requisite: 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 export base theory; input-output modeling, social accounting matrices (SAMs), computable general equilibrium models (CGEs) and regional econometric and conjoint models. Pre-requisite: 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 calculus. Computer spreadsheets and scientific hand calculators used. Pre-requisite: C or higher in ECO 303 Advisory Pre-requisite: 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. Pre-requisites: 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. Pre-requisites: 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. Pre-requisite: C or higher in ECO 303 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. Pre-requisites: C or higher in ECO 303 3 credits

ECO 348 Analysis for Managerial Decision Making
Development of analytical techniques (such as linear

Spring 2009: updates since Spring 2007 are in red

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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

**4 credits**

**ECO 351, 352, 353, 354 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 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 coalitional 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 126 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**

**ECO 358-J Topics in Developing Economies**

Semester supplements to this Bulletin contain specific descriptions 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**

**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 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 303

*Advisory Prerequisite:* C or higher in ECO 305

**3 credits**

**ECO 475 Undergraduate Teaching Practicum I**

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 related to the course.

*Prerequisites:* Permission of instructor and department

**3 credits, S/U grading**

**ECO 476 Undergraduate Teaching Practicum II**

Work with a faculty member as an assistant in one of the faculty member’s regularly scheduled classes. 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.

*Prerequisite:* At least one upper-division ECO course

**3 credits, 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**