

## ECO

## Economics

### **ECO 101 CONTEMPORARY ECONOMIC ISSUES. (3)**

A basic course in the analysis of contemporary economic issues with emphasis on current economic topics such as inflation, poverty and affluence, urban congestion, and environmental pollution. (Credit will not be given for this course to students who have received prior credit in ECO 201 and/or 202.)

### **ECO 201 PRINCIPLES OF ECONOMICS I. (3)**

The study of the allocation of scarce resources from the viewpoint of individual economic units. Topics include household and firm behavior, competitive pricing of goods and resources, and monopoly power.

### **ECO 202 PRINCIPLES OF ECONOMICS II. (3)**

A study of how society's needs are satisfied with the limited resources available. Topics include contemporary issues such as inflation, unemployment, economic growth, international dependencies, and how public policy deals with them. A critical understanding of the U.S. and global economies will enhance your value as a manager or executive of a business (whether for-profit or non-profit), as a family member dealing with jobs and financial decisions, and as a voter in a democracy. The course will allow you to become knowledgeable of, and able to critically think about, the major macroeconomic issues of unemployment, jobs, recessions, economic growth, inflation, deflation, oil prices, monetary policy, the Federal Reserve, fiscal policy, budget deficits, the national debt, international trade, international finance, and the financial system. Prereq: ECO 201.

### **ECO 301 ECONOMIC PRICE THEORY. (3)**

ECO 301 is an undergraduate course in microeconomic theory designed for students who enjoy economics but are NOT planning on selecting a major in economics. We will study the behavior of individual decision makers: households, firms, resource owners and the interaction of such individual economic units in markets. We will study the role that prices play in guiding the allocation of resources in a market economy. To reinforce students' understanding of microeconomic theory, and also to demonstrate the relevance of particular theoretical concepts, we will include numerous real world situations as we apply each topic. Students who have already taken ECO 401 are not allowed to take ECO 301. Prereq: ECO 201 and ECO 202 or the equivalent.

### **ECO 311 BUSINESS ECONOMICS. (3)**

This course applies basic economic principles to the types of problems faced by business decision makers. Particular attention is paid to the economics of organizations and to the economics of firm strategy. Topics covered will include the nature of the firm, the make or buy decision, corporate governance, distribution channels, external market structure, selling decisions, and rivalry and strategy. Prereq: ECO 201 and ECO 202 or equivalent.

### **ECO 312 MONETARY ECONOMICS. (3)**

This course analyzes how savers and borrowers meet in financial markets to allocate resources to their most productive uses. Major topics include the theory of pricing of financial assets, equilibrium determination of asset prices, risk and term structures of interest rates, how moral hazard and adverse selection inhibit credit allocation, fundamentals of commercial banking, and central bank policies. Prereq: ECO 201 and ECO 202 or equivalent.

### **ECO 327 STRATEGIC DECISION MAKING: AN INTRODUCTION TO GAME THEORY. (3)**

The course is an introduction to strategic decision making and game theory. Ideas such as Nash equilibrium, dominant strategies, evolutionary stability, and asymmetric information are applied to a variety of strategic decision making problems taken from economics, computer science, politics, and biology. Prereq: A grade of B or better in MA 113 or MA 132 or MA 137 or consent of department. Students should have a strong background in first semester calculus. (Same as MA 327.)

### **ECO 365 SOCIAL ECONOMIC ORGANIZATION. (3)**

This course examines the major economic systems of the world. Students will develop a general understanding of how economic systems work and how economic theory interacts with government policy, history, and culture to explain economic performance. Prereq: ECO 201 and ECO 202 or equivalent.

### **ECO 367 AMERICAN ECONOMIC HISTORY. (3)**

The development of the American economy will be examined within the general framework of economic theory. Major emphasis will be given to the long-run process of economic growth of the economy from the colonial period to the present. Prereq: ECO 201 and ECO 202 or the equivalent.

## ECO

## Economics

### **ECO 370 THE GLOBAL ECONOMY. (3)**

This course explores the theoretical foundations of International Trade including the basics of why countries trade, factors that explain the pattern of trade, the effects of trade on welfare and the distribution of income, and various policy issues. The course also provides an examination of topics in International Finance such as how international financial markets are structured and how currencies across countries relate to each other in foreign exchange markets. Prereq: Courses include ECO 201 AND ECO 202 or the equivalent. Students who have already taken ECO 471 or ECO 472 may not take ECO 370 and ECO 370 may not be taken concurrently with ECO 471 or ECO 472. Students majoring in Foreign Language and International Economics are not allowed to take ECO 370. While other economics majors through the College of Business and Economics and the College of Arts and Sciences are allowed to take this course, it is ideal for non-majors who have an interest in the global economy and students pursuing a Minor in International Business and Economics.

### **ECO 379 THE ECONOMICS OF PUBLIC POLICY, LAW, AND GOVERNMENT. (3)**

This course develops the economics view of the role of government from both normative and positive perspectives. Conditions under which markets perform well are presented, as well as cases where there is market failure. Legal and social institutions that support markets are discussed, as are government policies to intervene in markets. Economic models of the operation of government are developed to understand possible shortcomings of government action, as well further linkages of economics to law. The economics perspective on income redistribution is presented along with examples from specific government programs. Prereq: ECO 201.

### **ECO 381 ENVIRONMENTAL ECONOMICS. (3)**

This class will focus on the role of the environment and related issues in the theory and practice of economics. Topics covered include externalities caused by market failures, environmental policies and regulation, basic techniques used in the valuation of non-market goods and amenities, and welfare calculation and cost-benefit analysis. Prereq: ECO 201 and ECO 202 or equivalent.

### **ECO 383 HEALTH ECONOMICS. (3)**

This course examines the organization, financing, and management of the U.S. health care system and programs, and emphasizes contemporary health policy concerns. Prereq: ECO 201 and ECO 202 or equivalent.

### **ECO 385 LAW AND ECONOMICS. (3)**

This course will survey the field of law and economics. We will study the core areas of common law – property, contract, and tort. We will consider the sometimes-competing goals of equity and efficiency and their roles in the formulation of legal decisions. We will study the Coase theorem, and will see how the presence of transactions costs, incomplete information, and risk aversion can influence the outcome of any particular legal decision. Finally, we will examine criminal law, optimal punishment, and optimal enforcement. Prereq: ECO 201 and ECO 202 or the equivalent.

### **\*ECO 391 ECONOMIC AND BUSINESS STATISTICS. (3)**

Statistical ideas are part of the language of business. An understanding of statistics will enhance your value as a manager or executive. Many of the upper division courses in Accounting, Agriculture Economics, Economics, Finance, Management, Marketing, and Public Policy use and build upon the statistical techniques and analysis learned in ECO 391. This course provides a survey of statistical techniques relevant to modern economics and business, with major emphasis on estimation, hypothesis testing, correlation, modeling, analysis of variance, regression, and forecasting. Prereq: STA 296 or STA 381 or equivalent.

### **#ECO 392 INTRODUCTION TO RESEARCH IN ECONOMICS. (3)**

In this course students will apply economic theory to real world problems and concerns, learn where resources and data can be located, use statistical methods to analyze and evaluate the application of economic theory and reasoning, and gain an appreciation for the value of economic reasoning and research, while also recognizing the limitations of its application. Students will also learn to write a final paper and effectively present it to their fellow students. Prereq: The course has two prerequisites ECO 202 and ECO 391. Students who have already taken ECO 491G cannot take ECO 392 and ECO 392 cannot be taken concurrently with ECO 491G.

### **ECO 393 SPORTS ECONOMICS. (3)**

This course focuses on the application of economic theories to sports and the sports industry and understanding the behavior of economic agents in sports. Students who complete the course will gain insight into economics, understand how to apply economic models to explain observed behavior in sport, and appreciate empirical economic evidence generated from sports-related data. Prereq: ECO 201 and ECO 202 and ECO 391 or the equivalent.

ECO

Economics

**ECO 395 INDIVIDUAL WORK IN ECONOMICS. (1-6)**

Students confer individually with the instructor. Written paper usually expected and filed in chairperson's office. May be repeated to a maximum of six credits. Prereq: GPA of 3.0 in major, approval of instructor and chairperson.

**ECO 401 INTERMEDIATE MICROECONOMIC THEORY. (3)**

An analysis of the behavior of consumers and firms, price determination, various market structures, and income distribution. Prereq: ECO 201 or equivalent with a grade of C or higher, ECO 202 or equivalent with a grade of C or higher and MA 113 or MA 123 or equivalent.

**ECO 402 INTERMEDIATE MACROECONOMIC THEORY. (3)**

National income concepts, the determination of aggregate income and employment, the theory of money and inflation and problems of economic growth. Prereq: ECO 202 or equivalent and ECO 401 taken previously or permission of instructor.

**\*ECO 410 CURRENT ISSUES IN ECONOMICS (Subtitle required). (3)**

The course addresses relevant topics in economics. May be repeated for a maximum of six credits under different subtitle. Prereq: ECO 202, ECO 391, ECO 401 and/or ECO XXX to be identified by instructor upon time of offering.

**#ECO 430G COST BENEFIT ANALYSIS. (3)**

Cost-Benefit Analysis uses economic tools to identify and quantify how society values the outcomes of public policies. This course examines how to identify these costs and benefits, addresses uncertainty, evaluates research techniques used to measure policy outcomes, and discusses methods for valuing these outcomes. Prereq: ECO 401 or equivalent or consent of instructor.

**ECO 450G THE ECONOMICS OF POVERTY AND WELFARE PROGRAMS. (3)**

Examines the economic conditions of the poor in the U.S., theories of poverty, and major redistribution programs in the U.S. The course will study the economic impacts of such programs as Social Security, Medicare, Aid to Families with Dependent Children, Food Stamps, Medicaid, and child care subsidies. Prereq: ECO 401 or equivalent or consent of instructor.

**ECO 461 MARKET STRUCTURE AND ANTI-TRUST POLICY. (3)**

A study of the relationship between industry performance and market structure, and the role and effect of the government's anti-trust policies. Prereq: ECO 401 or equivalent.

**ECO 463 ANALYSIS OF BUSINESS CONDITIONS. (3)**

A study of economic factors causing fluctuations in aggregate economic activity and the methods of forecasting business activity. Prereq: ECO 202 or equivalent, and ECO 391.

**ECO 471 INTERNATIONAL TRADE. (3)**

This is advanced economic course in international trade. The first part of the course covers the basics of why countries trade, what explains the pattern of trade that we observe and what are the effects of trade on welfare and the distribution of income. The second part of the course covers issues concerning trade policy and looks at the positive and normative effects of trade policy and trade agreements as well as investigating topics of current interest. While the focus of the course is on theory, students will also be exposed to many applications of the theory as a means of both explaining the economic intuition and encouraging students to analyze the world around them from an economic perspective. Prereq: ECO 401 or equivalent. Agricultural Economics majors may substitute AEC 303 for this prerequisite. (Same as AEC 471.)

**ECO 472 INTERNATIONAL MONETARY ECONOMICS. (3)**

This course deals with macroeconomic and financial aspects of the open economy. Main subjects include the balance of payments, exchange rate determination, and macroeconomic theory and policy in an open economy. Students are exposed to basic concepts such as purchasing power parity, interest parity, monetary models of the exchange rate, and the Mundell-Fleming model. Current issues for discussion include currency crises, pros and cons of international capital flows, and the choice of exchange rate regime. Prereq: ECO 402 or consent of instructor.

**ECO 473G ECONOMIC DEVELOPMENT. (3)**

A comparative study of economic progress in selected countries; growth patterns, theories of development and capital formation, interaction of social and economic change. Prereq: ECO 401 or equivalent or consent of instructor. (Same as AEC 473G.)

## ECO

## Economics

### **ECO 477 LABOR ECONOMICS.**

**(3)**

Application of economic principles to analyze the operation of labor markets. Topics covered include: theories of labor movements, comparative analysis of unionism in different economies, labor supply, labor demand, human capital, collective bargaining, public policy and the operation of labor markets. In addition, selected topics such as female and minority employment, social security, and industrial conflict will be covered. Prereq: ECO 401 or equivalent.

### **ECO 479 PUBLIC ECONOMICS.**

**(3)**

An application of economic analysis to the study of the role of government. Emphasis is on the reasons for and the effects of government intervention in the economy. Topics covered include: market failure, public goods and externalities, welfare policy, voting and public choice, taxation, public debt and cost-benefit analysis. Prereq: ECO 401 or equivalent. Agricultural Economics majors may substitute AEC 303 for this prerequisite. (Same as AEC 479.)

### **ECO 491G APPLIED ECONOMETRICS.**

**(3)**

To provide the student with a firm foundation in the design and estimation of economic models, empirical analysis of economic relationships, and forecasting. Emphasizes the structure and utilization of economic models. Prereq: ECO 391, ECO 401, and ECO 402 or equivalent or consent of instructor. This course is a Graduation Composition and Communication Requirement (GCCR) course in certain programs, and hence is not likely to be eligible for automatic transfer credit to UK.

### **ECO 499 SEMINAR IN ECONOMICS (Subtitle required).**

**(3)**

Reading, research and discussion in a seminar format to illuminate problems of historical and contemporary interest in areas of special faculty competence. May be repeated to a maximum of nine credits, but may not be repeated under the same subtitle. Will be limited to a maximum of 15 students. Prereq: ECO 391, ECO 401, and ECO 402 or equivalent. This course is a Graduation Composition and Communication Requirement (GCCR) course in certain programs, and hence is not likely to be eligible for automatic transfer credit to UK.

### **ECO 590 INTRODUCTION TO QUANTITATIVE ECONOMICS I.**

**(3)**

An introduction to mathematical approaches to economic theory. Emphasis on linear models, constrained optimization, and techniques used in comparative statics. Prereq: ECO 401 and MA 213, or graduate status, or consent of instructor. (Same as AEC 590.)

### **ECO 601 ADVANCED MICROECONOMIC THEORY.**

**(3)**

An intensive course covering microeconomic theory and its various methodological and analytical techniques. Prereq: ECO 401 or consent of instructor.

### **ECO 602 MACROECONOMIC THEORY.**

**(3)**

An analysis of a market clearing, general equilibrium macroeconomic model. Emphasis on theoretical foundations of relevant behavioral functions and comparative statics. Not open to those with credit in ECO 761. Prereq: ECO 402 or consent of instructor.

### **ECO 603 RESEARCH METHODS AND PROCEDURES IN ECONOMICS.**

**(3)**

The basic procedures and methods of research in economics are considered from the standpoint of their applicability to problem solving and discovery of new scientific facts and generalizations in economics. Definition of the problem, statement of hypothesis, research design, data collection methods, and data analysis constitute the major topics. Attention is given to proper style and preparation of research reports in economics.

### **ECO 610 MANAGERIAL ECONOMICS.**

**(3)**

Analysis of applications of economic theory to management decision making. Such problems as demand and cost determination, pricing, and capital budgeting are treated. Prereq: Graduate standing, MA 123 or its equivalent.

### **ECO 619 SKILL DEVELOPMENT FOR APPLIED ECONOMIC ANALYSIS.**

**(3)**

Calculus, matrix algebra, mathematical statistics to understand basic economic models and applications and the fundamentals of econometric analysis. The intent of this course is to provide and develop the tools the students will need to engage in applied economic analysis and that will be used in subsequent courses in the MS in Economics Program. Prereq: MA 114 or its equivalent or consent of the instructor.

## ECO

## Economics

### **ECO 621 APPLIED MICROECONOMICS. (3)**

This course covers essential microeconomic models and issues for the advanced applied economist and is the foundational course for the microeconomics in the applied track of the MS in economics program. The focus is on topics and methods most frequently used and relied upon in applied business and policy problems. By doing so, the course will prepare students for subsequent coursework for the applied MS track. Additionally, it will strive for students to gain strong intuitive skills regarding how to approach applied economics problems and their related empirical applications. Prereq: ECO 401 or its equivalent or consent of the instructor.

### **ECO 622 MACROECONOMICS FOR APPLIED ECONOMISTS. (3)**

An applied analysis of macroeconomic conditions useful to a professional business economist is presented. Emphasis is on blending mainstream economic models of the economy with data to interpret current conditions, prospects for future conditions, and monetary and fiscal policies that influence these conditions. Prereq: ECO 402 (Intermediate Macroeconomics) or an equivalent course.

### **ECO 623 ECONOMETRICS FOR APPLIED ECONOMICS. (3)**

This course examines a variety of topics in applied econometrics. The course begins with a review of the classic linear regression model and ordinary least squares estimation. The primary focus of the class is to examine how estimation can be done when the classic model doesn't apply. Topics include endogenous regressors and instrumental variables, limited dependent variables models and maximum likelihood estimation, unobserved heterogeneity and panel data methods. Prereq: ECO 491 or equivalent or consent of instructor.

### **ECO 624 EMPIRICAL DATA MANAGEMENT. (3)**

This course will cover the basic ways that economic data can be obtained. The course will cover obtaining data from data from the web, from APIs, and from colleagues in various formats including raw text files, binary files and databases. It will also cover the basics of data cleaning and how to make data operational. Organized data dramatically speeds downstream data analysis tasks. The course will also cover the components of a complete data set including raw data, processing instructions, codebooks, and processed data. The course will cover the basics needed for collecting, cleaning and sharing data. Particular points of emphasis will include reading and writing datasets, data cleaning, creating, changing and labeling variables and values, automating your work, combining and reshaping files, processing observations across subgroups, .do file programming, and programming using .ado files. Prereq: ECO 491 or its equivalent or consent of the instructor.

### **ECO 625 PREDICTIVE MODELS AND FORECASTING. (3)**

This course provides students with an overview of modern techniques in the forecast of time series used in a variety of applications in the private and public sectors including revenue and sales forecasting. As an applied course the techniques will be motivated by specific practical problems and will be put to use in forecasting practices. The course covers auto-regressive and moving average models, distributed lag models, forecasting, Vector Auto-Regression, unit roots and testing, and auto-regressive conditional heteroskedasticity. Prereq: ECO 623 or its equivalent.

### **ECO 631 BUSINESS ECONOMICS. (3)**

ECO 631 studies the economics of organizations and the economics of strategy. The first half of the course applies transactions costs and principal-agent theories to study the internal organization of the firm. Topics to be covered include the boundaries of the firm, corporate governance, choice of production process, and internal incentive systems. The second half of the course applies economic tools to the analysis of firm strategy. Topics to be covered include basic cost and demand conditions, economies of scale and scope, product differentiation, entry, exit and mobility conditions, price discrimination and commodity bundling, vertical control, and rivalry and strategy. Basic tools of game theory and asymmetric information are integral parts of this course. Prereq: ECO 621 or its equivalent or consent of the instructor.

### **ECO 652 PUBLIC POLICY ECONOMICS. (3)**

Principles and practices of economical resource management in the governmental sector: tax and expenditure types, intergovernmental fiscal cooperation, debt financing, budgeting and financial planning. Prereq: ECO 201 or equivalent and MPA or MPP program status or permission of department. (Same as PA 652.)

ECO

Economics

**ECO 653 HEALTH ECONOMICS. (3)**

This course applies general theoretical principles of economics to the health care sector. The basic approach is to recognize the importance of scarcity and incentives, allowing for differences peculiar to health. The demand and supply of health and medical care are examined as they involve physicians, nurses and hospitals. The competitiveness of their markets, health insurance and the role of government are explored. Special topics include regulation and planning, benefits-cost analysis, and reform health plans. Prereq: The economics prerequisite can be met in three ways: (a) an undergraduate principles course in microeconomics and HA/PA 652; (b) an undergraduate microeconomics principles course and a graduate course in managerial economics; or (c) an undergraduate microeconomics principles course and an intermediate microeconomics course. (Same as PA 636.)

**ECO 654 BENEFIT-COST ANALYSIS. (3)**

Principles, practices and applications of applied welfare analysis are the content of this course. The basic theory of benefit-cost analysis is presented and the relevance of implementation analysis in policy analysis is established. Prereq: PA 652. (Same as PA 680.)

**ECO 672 WORLD TRADE AND COMMERCIAL POLICY. (3)**

An analysis of trade patterns and the implication of government policy on trade, in the light of both economic theory and empirical findings. Prereq: Successful completion of an upper division undergraduate or graduate level economics course.

**ECO 674 AGRICULTURE AND ECONOMIC DEVELOPMENT. (3)**

Analytical consideration of the role of agriculture in economic development in relation to overall development strategy at various stages of growth. Theoretical and policy issues of particular relevance to the agricultural development in underdeveloped agrarian economies with various resource, social, political and economic systems. Prereq: ECO 473G or consent of instructor. (Same as AEC 626.)

**ECO 679 ECONOMICS OF THE PUBLIC SECTOR. (3)**

Topics and methods for students who wish to become policy practitioners as well for those who will deal with policy makers. Focus is on role of the federal, state, and local government in the economic with both the expenditure and revenue sides of the government budget examined. Substantial material from standard public finance courses including welfare measures and cost-benefit analysis, program evaluation, and tax analysis. Prereq: ECO 621 or equivalent or consent of the instructor.

**ECO 692 ECONOMETRICS FOR POLICY ANALYSTS. (3)**

Maximum likelihood estimation, ordinary least squares (OLS) regression, instrumental variables (IV) regression, heteroscedasticity-consistent regression, fixed and random effects models, probit, logit and tobit models, and identification and two-state least squares estimation of simultaneous equations models. Prereq: Any undergraduate statistics course. MPA, MPP or PUAD program status for priority registration, other students with permission of instructor. (Same as PA 692.)

**ECO 697 FINAL PROJECT IN APPLIED ECONOMICS. (3)**

The purpose of this course is to assist the student in developing and completing a research study applying the tools and institutional knowledge obtained in other courses in the Applied Economics courses to evaluate an important economic policy or concern in either the public or private sector. While much of the work in the course is done independently students will meet together to discuss their progress as well as meet with the instructor individually. Prereq: ECO 623 or its equivalent or consent of the instructor.

**ECO 700 TEACHING METHODS IN BUSINESS. (1)**

A three part course that examines what constitutes good teaching and explores effective techniques for college instruction. Seminars emphasize practical information for both the principal activities and the details of teaching. Departmental discussions allow students to discuss issues that arise in their teaching practice. Reviews of classroom performance provide professional feedback in order to enhance on-the-job learning. Seminar, two hours per week. Prereq: Approval of Director of Graduate Studies. (Same as BA 700.)

**ECO 701 NEOCLASSICAL MICROECONOMIC THEORY. (3)**

The Neoclassical theory of consumer behavior, production, market equilibrium and imperfect competition. Prereq: ECO 601 and ECO 590, or consent of instructor.

**ECO 702 ADVANCED MACROECONOMIC THEORY. (3)**

Analysis of general equilibrium macroeconomic models and factors responsible for deviations from general equilibrium. Emphasis on issues from recent professional literature. Prereq: ECO 602 or consent of instructor.

## ECO

## Economics

### **ECO 703 INTRODUCTION TO ECONOMETRICS I. (3)**

The first course in the introduction to econometrics. A comprehensive survey of the general linear regression, autocorrelation, errors in variables and distributed lag models. Prereq: ECO 590 and either ECO 603 or STA 525, or consent of instructor.

### **ECO 704 GENERAL EQUILIBRIUM ANALYSIS AND WELFARE ECONOMICS. (3)**

Existence, stability, efficiency and Pareto satisfactoriness of competitive equilibrium. Recent developments in general equilibrium and welfare theory. Prereq: ECO 701 or consent of instructor.

### **ECO 705 MACROECONOMIC DYNAMICS. (3)**

Theoretical and empirical assessment of dynamic issues in macroeconomics. Topics include neoclassical and endogenous growth models and vector autoregressions. Prereq: ECO 702 or consent of instructor.

### **ECO 706 INTRODUCTION TO ECONOMETRICS II. (3)**

The second course in the introduction to econometrics. A comprehensive survey of identification, estimation and hypothesis testing in the context of simultaneous equations model. Prereq: ECO 703 or consent of instructor.

### **ECO 707 RESEARCH SEMINAR IN ECONOMICS. (3)**

This course will help students develop research skills by requiring them to work through an independent project from start to finish. The student will review the literature and select a topic in an area of economics of interest. The student will then complete the project under the guidance of the instructor. Students will discuss their ongoing work in class with other students and in individual meetings with the instructor. The final output of the course will be a finished paper suitable for submission to a scholarly journal for publication. Prereq: Passing the Theory Exams or permission of the instructor.

### **ECO 721 ENVIRONMENTAL ECONOMICS, REGULATION AND POLICY. (3)**

This course takes a balanced practitioner approach to the problems of the environment and environmental regulation. Efficiency aspects will be developed carefully, so as to provide a background for an extensive coverage of various available alternative policies. Prereq: PA 652 and MPA or economics program status or consent of instructor. (Same as PA 727.)

### **ECO 724 ENVIRONMENTAL ECONOMICS. (3)**

This seminar in environmental economics deals with market failure, benefit-cost analysis, no market failure, valuations of environmental changes, and selected topics in environmental economics. Central to the course is valuing changes in health risks, risk perception, and behavior related to health risk. Selected topics include international issues, environmental equity and markets for environmental quality. This course and ECO 725 Health Economics are the two courses that are the basis for the area in Environmental and Health Economics in the Ph.D. Program in Economics. Prereq: ECO 601 and ECO 703 or consent of instructor.

### **ECO 725 HEALTH ECONOMICS. (3)**

This course rigorously examines the organization, financing, and management of the US health care system and programs, and emphasizes economic analysis contemporary health policy concerns. By the end of the semester, students should have the institutional knowledge and analytic tools needed to contribute to current public policy debates about health and medical care. This course and ECO 724 Environmental Economics are the two courses that are the basis for the area in Environmental and Health Economics in the Ph.D. program in Economics. Prereq: ECO 601 and 703 or consent of instructor.

### **ECO 726 ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS. (3)**

This course is a graduate-level survey of environmental and natural resource economics. Students will use mathematical models and econometric analysis to address topics including externalities and other market failures, environmental policies, management of renewable and nonrenewable resources, and non-market valuation. Prereq: ECO 701 and 703 (or equivalent courses), or consent of instructor. (Same as AEC 745.)

### **ECO 731 LABOR ECONOMICS I. (3)**

The theory and estimation of the demand for and the supply of labor are introduced. Topics include demographic changes, minimum wages, retirement, and secular trends in labor force participation. The concept of human capital is examined, including applications to income distribution. Theory and evidence on the structure of wages in the U.S. is considered. Topics include compensating wages and race and gender differences. Prereq: ECO 601 or consent of instructor.

**ECO**

**Economics**

- ECO 732 LABOR ECONOMICS II. (3)**  
 Dynamic and cyclical labor demand are examined theoretically and empirically. Models of unemployment are considered, including search theory and the implicit contract model. Aspects of labor unionism are examined including changes in union membership, strikes, and union wages and employment. The incentive effects of compensation are discussed, including sorting models and the principal-agent problem. Prereq: ECO 601 or consent of instructor.
- ECO 741 THEORY OF THE FIRM AND MARKET STRUCTURE. (3)**  
 A study of firms and markets covering such topics as organizational structure and objectives of firms; product selection, advertising and quality; price discrimination; vertical control; entry, accommodation and exit; cost structure and market organization, market structure and performance; and public policy. Prereq: ECO 601 or consent of instructor.
- ECO 742 INDUSTRIAL ORGANIZATION. (3)**  
 A comprehensive survey of the literature in industrial organizations including static theories of oligopoly, dynamic theories of oligopoly, information about strategic behavior, research and development, patents, and adoption of new technology.
- ECO 749 DISSERTATION RESEARCH. (0)**  
 Half-time to full-time work on dissertation. May be repeated to a maximum of six semesters. Prereq: Registration for two full-time semesters of 769 residence credit following the successful completion of the qualifying exams.
- ECO 751 PUBLIC ECONOMICS. (3)**  
 An advanced study of both how government activities influence allocation, relative prices and welfare and what is the proper role of the public sector in resource allocation. Relevant topics include: public goods, externalities, tax incidence, optimal taxation, benefit-cost analysis, public pricing, fiscal federalism, state-municipal finance and public choice. Prereq: ECO 601 or consent of instructor.
- ECO 752 ADVANCED TOPICS IN PUBLIC FINANCE. (3)**  
 Principles of taxation and expenditure; applications to federal, state, and local policy; fiscal federalism; international public finance. Prereq: PA 752, ECO 701 or permission of the instructor. (Same as PA 754.)
- ECO 753 URBAN AND REGIONAL ECONOMICS. (3)**  
 An intensive study of the theory, evidence and policy concerning urban areas and regions. Topics typically covered include: nature of regions and urban areas, size and distribution of cities, location decisions, housing, transportation, migration and regional growth. Prereq: ECO 601 or consent of instructor.
- ECO 761 MACRO AND MONETARY ECONOMICS I. (3)**  
 Advanced study of business cycle fluctuations. Theoretical and empirical investigations of the causes of business cycles; evaluating the effectiveness of monetary, fiscal, and other policies to affect inflation, unemployment, and short-run economic goals. Emphasis on current academic research. Prereq: ECO 701, ECO 702 or consent of instructor.
- ECO 762 MACRO AND MONETARY ECONOMICS II. (3)**  
 Advanced study of long-run macroeconomic issues. Theoretical and empirical examinations of the determinants of economic growth; analysis of government policies, country endowments, and institutional factors in determining growth rates and income levels. Emphasis on current academic research. Prereq: ECO 702 or consent of instructor.
- ECO 767 DISSERTATION RESIDENCY CREDIT. (2)**  
 Residency credit for dissertation research after the qualifying examination. Students may register for this course in the semester of the qualifying examination. A minimum of two semesters are required as well as continuous enrollment (Fall and Spring) until the dissertation is completed and defended.
- ECO 768 RESIDENCE CREDIT FOR THE MASTER'S DEGREE. (1-6)**  
 May be repeated to a maximum of 12 hours.
- ECO 769 RESIDENCE CREDIT FOR THE DOCTOR'S DEGREE. (0-12)**  
 May be repeated indefinitely.



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**ECO**

**Economics**

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- ECO 771 INTERNATIONAL ECONOMICS: INTERNATIONAL MONEY AND FINANCE. (3)**  
International finance and open economy macroeconomics; the balance of payments; theory of exchange rate determination; macroeconomic policy issues in open economies. Prereq: ECO 602.
- ECO 772 INTERNATIONAL ECONOMICS: TRADE THEORY AND POLICY. (3)**  
Theory and empirical analysis of the effects of trade and trade policy. Prereq: ECO 601.
- ECO 773 OPEN ECONOMY MACROECONOMICS. (3)**  
Development of rigorous models to enhance knowledge of open economies. Topics include: impact on an economy of changes in trade, the current account balance, exchange rates, and international financial markets. Prereq: ECO 702.
- ECO 790 TIME SERIES ANALYSIS. (3)**  
Time series and stochastic processes, auto-correlation functions and spectral properties of stationary processes; linear models for stationary processes, moving average, auto-regressive and mixed auto-regressive-moving average processes; linear nonstationary models, minimum mean square error forecasts and their properties; model identification, estimation and diagnostic checking. Prereq: STA 422G or its equivalent. (Same as STA 626.)
- ECO 796 SEMINAR. (1-6)**  
An extended original investigation of some specific topic with a view to giving training in methods of research and studying intensively a particular subject in the field of economics. May be repeated to a maximum of six credits.
- ECO 797 RESEARCH PROBLEMS IN ECONOMICS. (1-9)**  
Students confer individually with the instructor. May be repeated to a maximum of 15 credits. Prereq: Permission of the Director of Graduate Studies is required.