ECONOMICS

Department Code: ECO

Introduction and Educational Objectives

Economics studies optimal decision-making in a wide range of professional tasks. Economists develop critical thinking skills grounded on solid analytical and empirical tools. More specifically, economics deals with the analysis of relevant determinants of resilient economic growth and sustainable globalization; employment, inflation, and financial stability; inequality and welfare programs; sustainable public health, social security, and education systems; clean-energy transition; optimal pricing, product differentiation, innovation, and advertising policies. Of course, these issues have a huge impact on people's life. Sound economic analysis should guide the implementation of public policies and the management of modern enterprises. For instance, in major tech companies economic experts play a central role in platform design, pricing, reputation systems, corporate strategies, and public policy (see Athey and Luca 2019 (https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.33.1.209)).

Economics majors are successful in a large variety of careers: corporate world, consulting, government, not-for-profits, international agencies, law, as well as graduate studies and academics (e.g., The American Economic Association web page (https://www.aeaweb.org/resources/students/careers/)). Economists' unique mix of skills have proved essential in an increasingly global and dynamic economic environment. New technologies pose challenging problems supported by vast amounts of data. These problems—as well as the technical data analysis—must be led by critical economic thinking. Hence, economic methods and skills are expected to even gain more relevance in the coming future (e.g., Future of Jobs 2020 (https://www.weforum.org/reports/the-future-of-jobs-report-2020/)).

A student pursuing the Economics major or minor will select one of two possible options: Political Economy (People and Society) or Quantitative Economics (Science, Technology, Mathematics, and Engineering).

The Department of Economics also supervises the MHBS co-major and minor in Sustainable Business, which are designed to provide students with a grounding in the business concepts of sustainability, as well as to offer additional perspectives from the science/technical and policy/social issues fields.

Members of the Department are prepared to counsel students in the selection of courses and in other matters relating to the preparation for careers. Students interested in pursuing the Master of Science in Sustainable Business (https://bulletin.miami.edu/graduate-academic-programs/business/specialized-master-degrees/sustainable-business/) or the Doctor of Philosophy in Economics (https://bulletin.miami.edu/graduate-academic-programs/business/doctoral/economics-phd/) may seek additional information through the Department of Economics.

ECO 211. Principles of Microeconomics. 3 Credit Hours.
Fundamental course devoted to the development and application of basic analytical tools and principles required for an understanding of major economic problems and policy alternatives available for their solution. A particular emphasis is devoted to microeconomic analysis. Topics include the study of markets under varying conditions of competition, including market deficiencies such as pollution, prices, and resource allocation distribution of income, including poverty problems, the economics of the firm and the government, and international economic relations.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ECO 212. Principles of Macroeconomics. 3 Credit Hours.
Fundamental course devoted to macroeconomic analysis. Topics include national income and employment analysis, money and banking, economic growth, and comparison of different economic systems, including the problems of developing the less developed world.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ECO 213. Principles of Economics. 4 Credit Hours.
This course introduces the study of the economic behavior of individuals, firms, and markets; as well as the analysis of the economy as a whole, both in terms of short-run fluctuations (the business cycle) and long-run determinants of economic growth.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 300. Microeconomic Theory and Applications. 3 Credit Hours.
Intermediate level analysis of the role of price in resource allocation in markets of varying degrees of competition. It focuses on the process of decision-making by individuals and firms, and the welfare consequences. Special attention is devoted to economic applications.
Prerequisite: ECO 211 or ECO 213 and MAS 110, or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 301. Macroeconomic Theory. 3 Credit Hours.
Intermediate level analysis of the measurement, determination, and control of aggregate economic activity.
Prerequisite: ECO 212, MAS 110, or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 302. Microeconomic Theory. 3 Credit Hours.
Intermediate level analysis of the role of price in resource allocation in markets of varying degrees of competition, as well as in the determination of wages, rent, interest, profits, and public policy.
Prerequisite: ECO 211 or ECO 213 and MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 303. Macroeconomic Theory. 3 Credit Hours.
Intermediate level analysis of the measurement, determination, and control of aggregate economic activity.
Prerequisite: ECO 212 or ECO 213 and MAS 110 or MTH 130 or MTH 141 or Higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 307. Public Economics. 3 Credit Hours.
This course studies the role of governments in the economy by surveying several topics in public finance and public policy; it is designed to be a link between the theory and several policy-relevant applications. Students will acquire the microeconomic tools and techniques to identify, analyze, and solve public policy and political economy problems. Students will also learn to apply the theory to current events such as the policy debates over social security, health care, education, and tax reform. Selected topics: budget analysis and scoring; correction of externalities and provision of public goods; public choice theory and government failure; fiscal federalism and redistribution; role of government in education, social security, and health care; income distribution and welfare programs; optimal taxation and tax inefficiencies; taxes on labor supply, savings, capital gains, and business income; fundamental tax reform and consumption taxation. This is an elective class addressed to economics majors, minors, and any student with an interest in the topics.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 311. Labor Economics (I). 3 Credit Hours.
Course surveys the structure and functioning of labor markets. Topics include determinants of labor supply and labor demand, economics of wage differentials, economic impact of labor unions, discrimination in labor markets, and the labor market effects of various government policies such as payroll and income taxes, educational subsidies, and minimum wage laws. The central goal of the course is to provide the student with a framework for analyzing diverse issues related to the labor sector of the economy.
Prerequisite: ECO 300. Or ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 333. Industrial Economics and Public Policy. 3 Credit Hours.
This course surveys several topics in industrial economics, regulation, and antitrust; it is designed to be a link between the theory and several applications. Students will acquire the microeconomic tools and techniques to identify, analyze, and solve industrial economics and government competition policy problems, and will learn to apply the theory to many real-world markets and current economic events. Selected topics: price discrimination; product differentiation; advertising; network effects; consumer search and digital markets; auctions; bargaining; vertical restraints and mergers; collusion and cartels; innovation and intellectual property; natural monopolies and regulation; and antitrust policies. This is an elective class addressed to economics majors, minors, and any student with an interest in the topics.
Requisite: ECO 300 OR ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 345. Environmental Economics. 3 Credit Hours.
This course determines the appropriate way to regulate economic activity so as to achieve an optimal balance between competing environmental and economic goals. Economic reasoning is used to evaluate causes and consequences of environmental problems. The course rigorously evaluates various types of environmental regulation, including "cap-and-trade," command and control mandates, and pollution taxes. Other specific topics include public goods, externalities, cost benefit analysis, non-market valuation, and international trade and development and the environment.
Prerequisite: ECO 211 or ECO 213.
Components: LEC.
Grading: GRD.
Typically Offered: Spring & Summer.

ECO 351. Economics of Development. 3 Credit Hours.
This course studies factors underlying economic development, measures of and goals for development, principles applicable to problems of development, the role of markets and planning in development, social, cultural, and political factors affecting economic development, and comparative rates of progress in different countries.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Spring & Summer.

ECO 371. Latin America, the Caribbean, and the Global Economy. 3 Credit Hours.
An analysis of the historical and projected economic growth of major Latin American and Caribbean countries, with emphasis on the post World War II period. This course analyzes industrialization, foreign investment, international trade and regional integration, monetary and fiscal policies, exchange rates, financial stability, corruption, and development strategies and planning within the context of Latin America and the Caribbean.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 379. The Political Economy of Growth. 3 Credit Hours.
This course studies the causes of economic growth such as geography, culture, institutions, human and physical capital, as well as technology. It examines the role they play in the development process, casting light in their order of importance for growth and into which growth determinants are amenable to policy change.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 386. Health Economics. 3 Credit Hours.
The course applies the tools of microeconomic analysis to the health care sector. It examines how models of demand and supply apply to the health care sector in general, and in particular to the health insurance, the hospital, the physicians, and the pharmaceutical sectors. By examining the actors and issues in this market, students are able to discuss policy issues from an economic perspective.
Prerequisite: ECO 300. Or ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 403. Monetary Economics. 3 Credit Hours.
Analysis of the role of money in economic affairs. Topics include the determinants of the money supply and interest rates, money and prices, money and stability, and growth. Emphasis is placed on current problems and policies.
Prerequisite: ECO 301 or ECO 303.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

ECO 420. Economic Growth. 3 Credit Hours.
Course covers selected topics in economic growth. Topics include stylized facts associated with economic growth, the theoretical study of economic growth, and empirical tests of those theories. Course work is supplemented by case studies of individual countries, particularly developing countries.
Prerequisite: ECO 301 or ECO 303.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 430. Applied Econometrics. 3 Credit Hours.
This course introduces basic econometric techniques for analyzing economic data. The goal is to make students sophisticated consumers and skilled producers of empirical analysis, which will be attained by extensive work on a variety of real-world data like students' test scores, CEO wages, mortgage applications, cigarette demand, stock market capitalization, inflation, GDP and interest rates. Learning how to use econometric analysis software is an integral part of the course.
Prerequisite: ECO 211 or ECO 213 and MAS 110, or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 441. International Trade Theory. 3 Credit Hours.
Study of the principles of comparative advantage and the gains from international trade. Analysis of tariffs, quotas, and protectionism is included.
Prerequisite: ECO 300. Or ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 442. International Monetary Economics. 3 Credit Hours.
Analysis of models of the exchange rate, the balance of payments, and monetary policy in an open economy.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 443. Economic Analysis of Energy and Commodity Markets. 3 Credit Hours.
This course explores the principles of energy economics, commodity markets and advanced macroeconomics. It discusses the main trends in energy production and consumption, the methods of analysis in energy and commodity markets, and the main challenges in the energy sector. The analysis of oil prices and the economics of oil exporting countries is emphasized.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 444. Game Theory in Economic Applications.. 3 Credit Hours.
This course is an introduction to the techniques and questions of modern microeconomics. The course will expose you to the techniques of game theory, t he workhorse of modern microeconomics, and will apply those techniques to the analysis of a variety of economics situations and institutions.
Prerequisite: MAS110 or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 445. Global Economics: Trade and Currencies. 3 Credit Hours.
In this course, students are exposed to two fundamental topics which are primordial to the understanding of any economic, political and/or social circumstance in any given country at any given time: (1) The evolution and meaning of the business cycle and capitalism, and (2) The effect of international trade and currencies. These two themes have sparked debates for centuries as they have great implications in the development of countries. Also, this course challenges students' critical thinking and analytical skills with a wide range of controversial readings on these two topics. This course is divided into four sections. The first one introduces students to the idea of the business cycle. The second section aims at explaining how capitalism was born and how it has evolved in the 19th and 20th centuries. Then, the course centers on explaining capitalism today and presents criticisms. And finally, students analyze how the business cycle and capitalism has unfolded and affected certain countries in Latin America.
Prerequisite: ECO 301 or ECO 303.
Components: LEC.
Grading: GRD.
Typically Offered: Fall & Spring.

ECO 460. Industrial Organization. 3 Credit Hours.
This course shows how microeconomic theory can be used to understand the diverse practices encountered in real-world markets between the extreme cases of perfect competition and monopoly. Topics to be covered include strategic pricing behavior, collusion, advertising and information, vertical integration, vertical restraints, regulation and a review of empirical literature.
Prerequisite: ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 496. Directed Studies in Economics. 1-3 Credit Hours.
Supervised readings, individual research project, or independent investigation of selected non-STEM related problems in the discipline. Offered only by special arrangement with supervising faculty member, who approves topic and evaluation process at time of registration.
Components: THI.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 497. Directed Studies in Economics. 1-3 Credit Hours.
Supervised readings, individual research project or independent investigation of selected STEM-related problems in the discipline. Offered only by special arrangement with supervising faculty member, who approves topic and evaluation process at time of registration.
Components: THI.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 498. Special Topics in Economics. 3 Credit Hours.
Special topics in selected non-STEM areas of Economics.
Prerequisite: ECO 300. Or ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 499. Special Topics in Economics. 3 Credit Hours.
Special topics in selected STEM areas of Economics.
Prerequisite: ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

ECO 510. Mathematical Economics and Applications. 3 Credit Hours.
The course will focus on specific applications of microeconomic theory, which may vary each semester. Topics may include choice under uncertainty, game-theoretic models of insurance markets, principal-agents problems, and basic auction theory. The discussion of each application will be preceded by a discussion of the mathematical tools required. The mathematics topics covered may include basic theory of sets and functions, concave / convex functions and their role in optimization, expectations, conditional probability, Bayes rule, and order statistics.
Prerequisite: ECO 211 or ECO 213 and MAS 110, or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 511. Empirical Labor Economics. 3 Credit Hours.
A theoretical and empirical analysis of how labor markets operate. A survey of the literature, problems, and methodology of modern labor economics. Human capital analysis, the wage structure, job search and job-matching models, time-allocation models, the economic impact of labor unions, labor market discrimination, the determinants of labor demand and supply, and the factors affecting government policy relating to the labor sector is also included.
ECO 430.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 512. Topics in Mathematical Economics. 3 Credit Hours.
This course shows how modern economic techniques can be used to identify optimal managerial decisions and industrial developments. Diverse real-world economic applications are examined.
Prerequisite: ECO 211 or ECO 213 and MAS 110, or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

ECO 520. Advanced Econometrics. 3 Credit Hours.
Statistical methods of estimating and testing mathematical model of economic relationships.
Prerequisite: ECO 211 or ECO 213 and MAS 110, or MTH 130 or MTH 141 or higher.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 521. Advanced Macroeconomic Theory. 3 Credit Hours.
The primary objective of this course is to introduce the student to the mathematical presentation of the major Classical, Neo-classical, Keynesian, and Neo-Keynesian macroeconomic models.
Prerequisite: ECO 301 or ECO 303.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 532. History of Economic Thought. 3 Credit Hours.
Historical development of economic doctrines and theory. Topics and individuals discussed include mercantilism, physiocracy, Adam Smith, Thomas Malthus, David Ricardo, J. S. Mill, Karl Marx, marginal analysis, Alfred Marshall, and J. M. Keynes. Special emphasis is placed on the effect of historical insights upon the contemporary core of economic theory.
Prerequisite: ECO 213 or ECO 211 and ECO 212.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

ECO 533. Advanced Microeconomic Theory. 3 Credit Hours.
An introduction to the mathematical approach to microeconomic theory. Topics include consumer/household behavior, the theory of the firm, resource allocation, welfare economics, and uncertainty theory.
Prerequisite: ECO 302.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECO 555. Economics Departmental Honors Research Project. 3 Credit Hours.
Research project to fulfill requirements for Departmental Honors in Economics.
Components: THI.
Grading: SUS.
Typically Offered: Offered by Announcement Only.