Department of Economics and Global Studies

Professors: Colleen A. Fahy (Chairperson), Demetrius Kantarelis, Thomas J. White; Associate Professors: Kevin L. Hickey, Smriti Rao, Brian Volz; Lecturers: Abir Bukhatwa, Michael McKay, John Moore.

MISSION STATEMENT
The Department of Economics and Global Studies seeks to educate students about economic, social, and cultural relationships in an increasingly interdependent world. The department provides students with opportunities to acquire disciplinary knowledge in the areas of economics and geography, while encouraging the pursuit of a multi-disciplinary education. Our programs emphasize the development of critical intelligence and an appreciation for diverse, evidence-based perspectives in order to prepare students for a lifetime of engaged citizenship.

Through exposure to the theoretical and empirical methods of economics and geography, students develop a greater understanding of the complex world in which they live, and are able to critically evaluate options available for improving that world. Upon graduation, our students are prepared for careers in a wide array of fields in the private sector (such as banking and other financial services, business administration, marketing, sales, journalism, consulting, or entrepreneurship) or the public sector (government or non-profit analyst/researcher, etc.). In addition, our graduates are prepared to succeed in graduate school in a variety of disciplines, including economics, geography, foreign affairs, law, political science, finance, and business.

LEARNING GOALS
The Department of Economics and Global Studies has identified the following specific learning goals for our students:

1) To develop an understanding of the basic principles, concepts, and theories of the disciplines that we teach.
2) To develop an ability to retrieve economic and geographic information.
3) To develop an ability to use economic and geographic data using appropriate disciplinary methodology.
4) To develop an ability to apply economic and geographic knowledge to critically analyze problems and their potential solutions.
5) To develop effective written and oral communication skills.

MAJOR IN ECONOMICS (11)
A major in economics provides students with tools that are helpful in understanding the complex economic forces at work in society. In part, this understanding comes from learning factual information about economic events and institutions. However, economic facts are best viewed through the lens of economic theory, while economic data should be evaluated using careful statistical analysis. The undergraduate major in economics emphasizes applications of economic theory and analysis to a wide variety of real-world events and arrangements in both the private and public sectors. An economics major is an excellent preparation for direct entry into a career or for graduate work in economics, business, law, public administration, or international affairs. Students considering graduate school in economics are strongly encouraged to complete a minor or second major in mathematics as a strong background in mathematics is required for admittance to such programs. Please consult with the economics faculty for suggestions on which mathematics electives would be most appropriate. Within economics, there are two possible majors: Economics, and Economics with Business Concentration. Students in both majors are required to complete the seven courses that make up the economics core, plus four to eight additional courses.

Economics Core (7)
- ECO 110 Principles of Microeconomics
- ECO 111 Principles of Macroeconomics
- ECO 115 Statistics
- ECO 215 Econometrics I
- ECO 310 Microeconomic Theory
- ECO 311 Macroeconomic Theory
- ECO 499 Senior Research Seminar
Economics Electives (4) Chosen from among department offerings.

Note: Calculus I (MAT 117 or 131) is a prerequisite for ECO 310: Microeconomic Theory. Additional mathematics courses beyond calculus are especially important for students considering graduate school in economics or business. CSC110 or CSC113 or successful completion of a test-out option is a prerequisite for ECO115; Statistics. A student who chooses to major in Economics while minoring in finance will need to take a total of 14 Economics courses.

Recommended Four-Year Plan for the Economics Major

The following plan is recommended for economic majors. The major is flexible to accommodate study abroad and students can successfully complete the major with the latest starting point being spring of sophomore year. While not a complete necessity, students should try to complete the first and sophomore year courses by the end of sophomore year.

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>ECO110 Principles of Microeconomics</td>
<td>ECO111 Principles of Macroeconomics</td>
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<tr>
<td></td>
<td>CSC110 Excel</td>
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<td>MAT117 or MAT131 Calculus</td>
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Sophomore Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>ECO115 Statistics</td>
<td>Economics Elective</td>
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<tr>
<td></td>
<td>ECO311 possible if ECO110-111 complete</td>
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Junior Year

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<th>Fall</th>
<th>Spring</th>
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<tr>
<td>ECO215 Econometrics</td>
<td>ECO311 Macroeconomic Theory</td>
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<tr>
<td>ECO310 Microeconomic Theory</td>
<td>Economics Elective</td>
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Senior Year

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<th>Fall</th>
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<tbody>
<tr>
<td>Economics Elective</td>
<td>ECO499 Research Seminar</td>
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<td>Economics Elective</td>
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DOUBLE COUNTS IN THE CORE FOR ECONOMICS MAJORS

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<tr>
<th>Second scientific or quantitative course</th>
<th>Person and Society</th>
<th>Global Awareness</th>
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<tbody>
<tr>
<td>ECO115</td>
<td>ECO110</td>
<td>ECO252; ECO264</td>
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ADVISING TIPS FOR THE MAJOR IN ECONOMICS

- Although 11 courses are required for the major, students can take up to 14 economics courses.
- CSC110 is a prerequisite for ECO115 which is a prerequisite for ECO215. CSC110 and ECO115 are offered every semester while ECO215 is only in the fall. Students should take CSC110 as early as possible.
- Students considering graduate school in economics should take a number of mathematics courses. Please see the economics department chair for details.
- Students who plan to major in economics and minor in finance must take 3 courses in the minor that do not count toward major requirements. Please see the department chair to plot a course.
- While there is not a course devoted to internships, students may complete internships for credit that may count as economics electives either during the school year or during the summer.
- Study abroad coursework may count as economic electives.
ECONOMICS (ECO)

ECO 110  PRINCIPLES OF MICROECONOMICS
An examination of the basic theory and performance of the household, business, and government in determining the nature of the output of the economy and its distribution among the members of the society. Policy issues considered may include public control of business, labor unions, agriculture, the environment, income distribution and poverty, and international trade. ECO 110 may be taken to satisfy the Core requirement for either a second scientific or quantitative option or a social science. Prerequisite: MAT 111. (Fall, Spring)
Staff/Three credits

ECO 111  PRINCIPLES OF MACROECONOMICS
An analysis of the basic theory of aggregate economic activity and the application of the theory to current policy problems. Topics include national income accounting, the determinants of the level of income and employment, money and banking, fiscal and monetary policies, and economic growth and stability. Prerequisite: ECO 110. (Fall, Spring)
Staff/Three credits

ECO 115  STATISTICS
The purpose of this course is to develop an understanding on an introductory level of how statistical inferences are made in the face of uncertainty. The underlying role of probability is stressed. A secondary purpose is the application of various test designs to formulate research questions. These designs include: t tests, analysis of variance, chi square analysis, and linear regression. (Counts as a second math course in the core curriculum) MA114 must be taken prior to or at the same time as ECO115. Prerequisite: CSC113 or CSC110 or successful completion of test-out. (Fall, Spring)
Fahy, Kantarelis, Moore, Volz/Three credits

ECO 210  ECONOMICS OF WOMEN, MEN, AND WORK
This course examines the work of women and men in the home and in the labor market. Economic decisions within the family are examined including the division of labor and the decision to engage in market work. Topics include: a historical perspective on women’s emergence in the workplace; comparative advantage within families; the effects of consumerism; and international comparisons. This is followed by an investigation into the underlying causes of the gender wage gap and the degree of poverty among women. The effects of government and business policies such as family leave, social security, affirmative action and social programs are discussed throughout. Prerequisites: ECO 110. (Alternate years)
Fahy/Three Credits

ECO 212  ECONOMICS OF THE PUBLIC SECTOR
Micro-economic and macro-economic theory is applied in an analysis of the role of the public sector in the United States economy. Following a consideration of the institutional arrangements that determine the magnitude of local, state, and federal taxes and expenditures, micro-theory is applied to the analysis of the impact of public finance on private sector behavior. Prerequisites: ECO 110–111. (Normally once per year)
Fahy, Volz/Three credits

ECO 215  ECONOMETRICS I
This course is about the construction of hypotheses and the specification of statistical methodology for testing those hypotheses. Students will learn estimation of parameters and inferential analysis, and how to apply these concepts to forecasting and policy. The course starts with the multiple linear regression model, after the properties of the ordinary least-squares estimator are studied in detail and a number of tests developed, it continues with specification, multicollinearity, autorecession, heteroskedasticity, and dummy variables. Prerequisites: ECO 115 or SOC300 or PSY 265; and MAT 117 or MAT131; and CSC110 or successful completion of a test-out option or CSC113 or CSC175. (Fall)
Fahy, Kantarelis, Volz/Three credits
ECO 216 SPORTS DATA ANALYSIS
The primary purpose of this course is to provide students with hands on experience analyzing large data sets from the sports industry. In addition to applying econometric analysis to sports data, students will also be introduced to measures of productivity and value currently being utilized within the sports industry. Students will use appropriate data analysis software to calculate traditional and emerging sports statistics and to analyze relationships between variables using regression analysis. Additionally, students will be introduced to data envelopment analysis as a measure of efficiency. Prerequisite: ECO215. (Spring, alternate years) Volz/Three credits

ECO 230 LAW AND ECONOMICS
The objective of the course is to show how economic thinking may facilitate legal thinking in its attempt to “create” efficient legal rules. After an overview of micro-economics and legal institutions, the course turns to the economics of the principal areas of the common and criminal laws. More specifically, it deals with the existing economic theories of property, contracts, torts, crime, and their applications. Prerequisites: ECO 110–111. (Alternate Years) Kantarelis/Three credits

ECO 235 ENVIRONMENTAL ECONOMICS
The course examines the relationship between the environment, markets, and business organizations. After an overview of the economics of the environment, it focuses on (among other topics) property rights; externalities; human population problems; the allocation of depletable, renewable, and other resources; cost-benefit analysis; regulation and taxation; and the trading of pollution rights. Prerequisite: ECO 110. (Alternate Years) Kantarelis, White/Three credits

ECO 250 SPECIAL TOPICS IN ECONOMICS
Special topics in Economics are offered occasionally. These courses expand our current offerings and respond to changing student concerns, interests or more general worldwide topics of importance. These courses can be interdisciplinary in nature. They will be taught at the intermediate level. Some may require prerequisites or could be restrictive in some other manner.

ECO 252 ECONOMIC DEVELOPMENT
Problems encountered by less developed countries. Theories of development are presented, followed by problems of capital accumulation; resource and population issues; strategies for agricultural and industrial development; government’s role; and relationships between developing and developed economies. Prerequisites: ECO 110. (Alternate Years) Rao/Three credits

ECO 264 COMPARATIVE ECONOMIC SYSTEMS
This course is an in-depth, comparative study of the rising economic powers of Asia and/or Central and Eastern Europe. Countries selected for study may include, among others, China, India, Russia and Poland. It examines such areas as transfer of firm ownership from the state to private investors, removal of price controls, macroeconomic stabilization, and the international economic relations of these countries, particularly their relationship with and impact upon the United States economy. Prerequisites: ECO 110. (Alternate Years) Rao/Three credits

ECO 310 MICROECONOMIC THEORY
The primary purpose of this course is to develop the ability to analyze the economic behavior of individuals, businesses, and government, in the light of economic principles. Topics include consumer theory, production and costs, various market structures and related models, and welfare considerations. Should be taken before senior year. Prerequisites: ECO 110–111, MAT 117 or 131. (Fall) Fahy, Kantarelis, Rao/Three credits

ECO 311 MACROECONOMIC THEORY
The modern theory of aggregate economic behavior is considered through development of comparative static models that include the principal aggregate variables associated with determination of output, employment and prices. The problems of economic growth are introduced by using a limited number of the basic dynamic models. Should be taken before senior year. Prerequisites: ECO 110–111. (Spring) White/Three credits
ECO 315  ECONOMETRICS II
After an overview of multiple regression, the course deals with simultaneous-equation models, instrumental variables, time series forecasting (VAR, cointegration, ARCH / GARCH), regression with panel data, and regression with binary dependent variables. The last portion of the course is spent on studying classic applications found in literature and on applied work undertaken by students on various topics of their choice. Prerequisite: ECO 215. (Spring, Alternate Years)

Kantarelis/Three credits

ECO 323  LABOR ECONOMICS
This course applies economic theory to labor market issues. It makes use of the analytical tools of micro- and macro-economics in an examination of productivity, pricing, and allocation of labor resources. Public policy issues are covered including discrimination, manpower development, income maintenance programs, collective bargaining, and unemployment. Prerequisites: ECO 110–111. (Alternate Years)

Volz/Three credits

ECO 325  CORPORATE FINANCE
Introduction to the principles and techniques utilized in the financial management of business. Topics to be covered include: interpretation of financial statements, time value of money, stock and bond valuation, ratio analysis, risk and return, capital budgeting, cost of capital, leverage, and capital structure. Prerequisites: ECO 110–111, ACC 125. (Fall, Spring)

Fahy, Volz, White/Three credits

ECO 329  MONETARY AND FINANCIAL INSTITUTIONS
A study of the role of money and monetary institutions in the economy. A parallel development of the monetary theory and institutions that determine public monetary policy and its influence on domestic and international economic activity. Prerequisites: ECO 110–111. (Normally once per year)

White/Three credits

ECO 331  INDUSTRIAL ORGANIZATION
The course is concerned with the organization of industries in a market environment. It focuses on the market structure, conduct, and performance of industries in the USA. In addition, attention is given to antitrust policy regarding price-fixing agreements, control of market structures, and restrictions on conduct. Prerequisites: ECO 110–111. (Alternate Years)

Fahy, Kantarelis, Volz/Three credits

ECO 340  THE ECONOMICS OF SPORTS
This course applies economic modeling to a number of issues surrounding professional and college sports in the United States. Market structure and game theory will be used to analyze the decision making process for the owners of professional sports teams. Public financing issues are addressed in the context of the funding of stadiums and arenas. A number of labor market topics will be examined including monopsony, labor unions and the economics of discrimination. Finally, collusion, game theory and human capital investment are examined in the context of college sports. Prerequisites: ECO 110 and 115. (May be taken with ECO 115) (Alternate Years)

Fahy, Volz/Three credits

ECO 353  INTERNATIONAL TRADE
An examination of the theory of international trade and policies followed by governments with respect to trade of goods and services among countries. Theory examines the gains from trade under classical and modern assumptions, and the impact of various measures used by governments to either restrict or promote trade. Policy analysis focuses on U.S. trade policies and the role of the World Trade Organization. Current topics include trade and the environment, NAFTA, U.S.-China trade, and others as appropriate. Prerequisites: ECO 110 and Junior/Senior standing. (Alternate Years)

Kantarelis, Rao/Three credits

ECO 354  INTERNATIONAL FINANCE
This course covers open economy macroeconomics. Topics include: balance of payments accounting, exchange rate determination, monetary and fiscal policy, and macroeconomic modeling. After examining standard theories and models, the course will explore case studies from recent history in numerous countries. The case studies will focus on: debt and balance of payments crises, speculative currency attacks, European monetary union, International Monetary Fund policy, and the value of the U.S. dollar. Students will engage in research projects. Prerequisites: ECO 110–111 and Junior/Senior standing. (Normally once per year)
Kantarelis, Rao/Three credits

**ECO 357 INVESTMENT THEORY**
An examination of investment decision making using economic analysis. Topics include types of investments; investment objectives; investment return and risk; security analysis; portfolio theory; the efficient market hypothesis; fundamental analysis; technical analysis; the capital asset pricing model; and other topics to be chosen by the instructor. Prerequisites: ECO 110–111, ECO 115. (Normally once per year)
Kantarelis, White/Three credits

**ECO 399 INDEPENDENT STUDY IN ECONOMICS**
Individually supervised study with one or more professors on an advanced topic. Open to qualified juniors and seniors with the permission of the Chair. (Fall/Spring)
Staff/Three credits

**ECO 499 RESEARCH SEMINAR**
Required of all Economics majors in their final semester. Course theme is chosen by the instructor. Research projects will be planned and carried out by students under faculty guidance. Seminar meetings provide the opportunity for discussions of students’ research and what it means to be an economist in today’s world. Useful for seniors in other social sciences and business studies. (Spring)
Staff/Three credits