

Economics

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Economic program and policy evaluation, environment

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History of economic thought, comparative economic systems

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Economics is a broad and challenging way of thinking. Theoretical reasoning and empirical testing of hypotheses are primary focuses of economics. Students of economics must understand abstract and logical thinking, as well as the necessary tools of mathematical and statistical analysis. The degree programs in economics and financial economics are designed to provide students with these skills.

Career and Academic Paths

A major in economics or financial economics is excellent preparation for employment in business or government; for professional study in law, business management, or public administration; or for graduate study in economics. Graduates of the UMBC economics programs:

- ▶ Enter the business world
- ▶ Enter government service at the local, state and federal levels
- ▶ Earn an M.B.A. and enter management positions
- ▶ Obtain an M.A. and/or Ph.D. in economics and go on to teach at the college level or enter research positions in government or business
- ▶ Attend law school, pursuing legal careers in various settings.

Academic Advising

Students who are interested in majors or minors offered by the economics department should contact the department for assistance in selecting an advisor. The advising process is designed to help students determine their field(s) of interest within economics and select courses relevant to their career path.

Major Programs

Bachelor of Arts in Economics

The department offers bachelor's degrees in economics and financial economics. The Bachelor of Arts (B.A.) degree in Economics consists of at least 40 credits distributed as follows:

A. General Core: 19-20 credits

ECON 101
Principles of Microeconomics

ECON 102
Principles of Macroeconomics

MATH 151
Calculus and Analytic Geometry I
OR
MATH 155
Elementary Calculus I

STAT 351
Applied Statistics for Business and Economics
OR
STAT 355
Introduction to Probability and Statistics for Scientists and Engineers

ECON 311
Intermediate Microeconomic Analysis
Note: Calculus is a prerequisite.

ECON 312
Intermediate Macroeconomic Analysis
Note: Calculus is a prerequisite.

B. 21 additional credits in economics, numbered ECON 314 or higher. ECON 600 may not be used to fulfill major requirements.

No course in which a student has earned a grade below "C" shall fulfill the major requirements.

Emphasis within the Economics Major

There are many emphases that an economics major may pursue, depending on educational and career objectives. The recommendations below are a general guide for students.

Economics is concerned with the study of the way decisions are made. Consumers, managers of firms and organizations, and societies make the types of decisions that economists study.

Microeconomics primarily is concerned with these decisions, the way they affect the prices of goods and services in a market economy, and the way decision-makers respond to these prices and various economic incentives.

Macroeconomics focuses on the economy as a whole and focuses on issues of unemployment, inflation and interest rates. The core theories of microeconomics and macroeconomics can be applied to specialized fields such as international trade, finance, regulation, and tax and monetary policies.

Courses in this program are listed under ECON.

I. Students completing a liberal arts program or preparing for professional school should select courses according to their specific interests and should develop a program in consultation with their major advisor.

II. Students preparing for graduate study in economics, particularly at the doctoral level, should complete courses that provide the necessary mathematical background.

At a minimum, these would include:

ECON 421
Introduction to Econometrics

ECON 490
Analytic Methods in Economics

MATH 221
Introduction to Linear Algebra

MATH 225
Introduction to Differential Equations

MATH 251
Multivariable Calculus

MATH 301
Introduction to Math Analysis I

MATH 302
Introduction to Math Analysis II

STAT 453
Introduction to Mathematical Statistics

III. Students interested in pursuing a career in business should consider completing the requirements for one of the certificates described under administrative science in addition to completing the requirements for their chosen major.

Bachelor of Science in Financial Economics

The B.S. in Financial Economics consists of at least 61 credits distributed as follows:

I. General Core: 40-43 credits

ECON 101
Principles of Microeconomics

ECON 102
Principles of Macroeconomics

ECON 121
Principles of Accounting I

ECON 122
Principles of Accounting II

ECON 311
Intermediate Microeconomic Analysis
Note: Calculus is a prerequisite.

ECON 312
Intermediate Macroeconomic Analysis
Note: Calculus is a prerequisite.

ECON 374
Fundamentals of Financial Management

ECON 320
Elements of Quantitative Methods for Management

OR
ECON 421
Introduction to Econometrics

OR
ECON 423
Economic Forecasting

CMSC 100
Introduction to Computers and Programming

OR
CMSC 103
Scientific Computing

OR
CMSC 104
Problem-Solving and Computer Programming

OR
IS 101
Introduction to Computer-Based Systems

OR
IS 295
Introduction to Applications Programming

STAT 351
Applied Statistics for Business and Economics

OR
STAT 355
Introduction to Probability and Statistics for Scientists and Engineers

MATH 151
Calculus and Analytic Geometry I

OR
MATH 155
Elementary Calculus I

ECON 490
Analytic Methods in Economics

OR
MATH 152
Calculus and Analytic Geometry II

OR
MATH 221
Introduction to Linear Algebra

PHIL 248
Scientific Reasoning

OR
PHIL 346
Deductive Systems

OR
CMSC 203
Discrete Structures

II. Financial Economics Core: 12 credits

Students choose four of the following courses:

One of the four must be ECON 471 or ECON 475.

ECON 301
Intermediate Accounting I

ECON 410
Selected Topics in Financial Economics

ECON 453
Household Economics

ECON 463
Theory of Public Finance

ECON 471
Money and Capital Markets

ECON 474
Cases in Corporate Finance

ECON 475
Financial Investment Analysis

ECON 476
Portfolio Analysis and Management

ECON 477
Analysis of Derivative Securities

ECON 478
Real Estate Economics and Finance

ECON 482
International Finance

III. Upper-Level Economics Electives: 9 credits

Students must complete nine additional credits in ECON numbered 314 or higher. Students may use any upper-level ECON courses listed in the general core or the financial economics core as upper-level ECON electives, provided the courses are not used to meet the requirements of the respective core.

Any two of the following may be substituted for upper-level economics electives:

ECON 302
Intermediate Accounting II

ECAC 329
Cost Accounting

ECAC 330
Principles of Taxation

POLI 353
Government Budgeting and Financial Administration

MATH 381
Linear Methods in Operations Research

STAT 454
Applied Statistics

No course in which the student has earned a grade lower than "C" shall fulfill the major requirements.

The B.S. in Financial Economics requires many courses that have a series of prerequisites. Students who wish to com-

plete the degree in four years of full-time study should plan their schedule accordingly. It is suggested that students complete ECON 101, 102, 121 and 122 in their first year. In addition, the calculus and statistics requirements also should be completed then, if possible.

In the second year, students should include ECON 311, 312 and 374 in their schedules. Having taken these courses by the end of the second year will allow students to complete the degree and general university requirements in four years without difficulty in scheduling.

Students transferring from a two-year college to UMBC should complete the equivalent of ECON 101, 102, 121 and 122 before transferring. In addition, other required introductory courses, such as calculus, linear algebra and the computer course could be taken before transferring. Students should plan to have most, if not all of all, of the general university requirements met before transferring. Once they have transferred, students should include ECON 311, 312 and 374 in their schedules as soon as possible.

Emphasis within the Financial Economics Major

Students may choose to emphasize public-sector finance, international finance or private-sector finance within the financial economics major. The following are suggested course options for areas of emphasis:

Public-Sector Finance

Elective courses included in the general core or financial economics core (if not used in the core):

ECON 463
Theory of Public Finance

ECON 421
Introduction to Econometrics

Other suggested electives:

ECAC 330
Principles of Taxation

ECON 403
Economic Growth and Cycles

ECON 405
Benefit Cost Analysis

ECON 414
Public Policy
Toward Business

ECON 415
Property Rights,
Organizations and
Management

ECON 416
The Economics of Law

ECON 464
State and Local
Public Finance

ECON 472
Monetary Theory and Policy

POLI 353
Government Budgeting and
Financial Administration

International Finance

Elective courses included in the general core or financial economics core (in the core):

ECON 482
International Finance

ECON 471
Money and Capital Markets

ECON 474
Cases in Corporate Finance

ECON 476
Portfolio Analysis
and Management

ECON 477
Analysis of
Derivative Securities

Other suggested electives:

ECON 382
Asian Economic History

ECON 385
Economic Development

ECON 387
Economic Development
of Latin America

ECON 442
European Economic History

ECON 481
International Trade Theory

ECON 486
Topics in Economic
Development

Private-Sector Finance

Elective courses included in the general core or financial economics core (in the core):

ECON 301
Intermediate Accounting I

ECON 471
Money and Capital Markets

ECON 474
Cases in Corporate Finance

ECON 475
Financial Investment
Analysis

ECON 476
Portfolio Analysis
and Management

ECON 477
Analysis of Derivative
Securities

ECON 482
International Finance

ECON 423
Economic Forecasting

Other suggested electives:

ECON 302
Intermediate Accounting II

ECAC 329
Cost Accounting

ECAC 330
Principles of Taxation

ECON 408
Managerial Economics

ECON 413
Industrial Organization

ECON 453
Household Economics

ECON 478
Real Estate Economics
and Finance

Minor Programs

The economics department offers two minors for students majoring in other disciplines. These minors are not available to economics or financial economics majors.

Minor in Economics

A minor in economics will consist of 21 credits in economics as follows:

ECON 101
Principles of
Microeconomics

ECON 102
Principles of
Macroeconomics

ECON 311*
Intermediate
Microeconomic Analysis

ECON 312*
Intermediate
Macroeconomic Analysis

Nine credits in economics courses numbered 314 or higher. A grade of "C" or better is required in courses that fulfill minor requirements.

*Note that calculus (MATH 155 or 151) is a prerequisite for ECON 311 and 312. ECON 493, 600, 601 and 602 do not count toward the minor.

All students should have a knowledge of introductory statistics, including regression analysis.

Minor in International Economics

A minor in international economics consists of 24 credits in economics as follows:

A. Required Courses (18 credits):

ECON 101
Principles of
Microeconomics

ECON 102
Principles of
Macroeconomics

ECON 311*
Intermediate Microeconomic
Analysis

ECON 312*
Intermediate
Macroeconomic Analysis

ECON 481
International Trade Theory

ECON 482
International Finance

B. Elective Courses (6 credits)

Students must complete any two of the following courses:

ECON 382
Asian Economic History

ECON 385
Economic Development

ECON 387
Economic Development
of Latin America

ECON 442
European Economic History

ECON 455
Economic Systems

ECON 457
Economic History of Russia
and the Soviet Union

ECON 486
Topics in Economic
Development

A grade of "C" or better is required in courses that fulfill minor requirements.

C. Foreign-Language Proficiency

Students must be proficient in any modern language at the intermediate (202) level. This requirement can be satisfied in conjunction with the student's General Foundation Requirements (GFR) or by evidence of five years of previous language study.

***Note** that calculus (MATH 155 or 151) is a prerequisite for ECON 311 and 312.

All students should have a knowledge of introductory statistics, including regression analysis.

Certificates in Administrative and Managerial Sciences

These certificates offer UMBC students the opportunity to prepare for careers in administration and management in the public and private sectors. The program provides students with marketable analytical skills needed for such careers. Each certificate requires students to pursue a major in any field at UMBC while completing the courses for one of the certificates.

Any one of the certificates is roughly equivalent to a concentration or a second major.

The following certificates are offered: finance, management science, personnel and industrial relations, public administration and policy (see full descriptions under administrative and managerial sciences), Preprofessional studies in accounting and M.B.A. preparatory studies.

FIEC majors may not also earn a certificate in Finance.

Accelerated B.A./M.A. and B.S./M.A. Program

UMBC undergraduates are eligible to apply for a program combining a B.A. in Economics or B.S. in Financial Economics with an M.A. in Economic Policy Analysis (offered jointly by the departments of Economics and Public Policy). Students in the combined B.A./M.A. or B.S./ M.A. program can obtain both a bachelor's and master's degree in as few as five years. Students should apply for admission to the B.A./M.A. or B.S./M.A. program during their junior year. Students interested in pursuing the accelerated program should plan to complete ECON 490 and ECON 421 before the beginning of their senior year.

Students admitted into the accelerated pathway receive undergraduate credit for graduate-level courses required in the M.A. program; these courses count toward both the M.A. and the 21 upper-level

credits required for the B.A. in Economics or toward both the M.A. and the upper-level economics elective credits required for the B.S. in Financial Economics. The accelerated program is substantially less expensive than a traditional master's program because students pay undergraduate tuition for graduate-level courses taken as undergraduates. For more information on the M.A. in Economic Policy Analysis, see *the Graduate Catalog* or visit our Web site at www.umbc.edu/economics.

For more information about the combined program and for an application form, see the economics department graduate program director, e-mail econmasters@umbc.edu or visit our Web site.

Honors Program

The departmental honors program in economics provides opportunities for qualified students to enrich their undergraduate studies and to receive recognition for academic excellence in economics. Students are qualified to enroll in the departmental honors program if they have completed a minimum of 60 credit hours of academic work with a minimum GPA of 3.5 and have completed at least ECON 101, 102, 311 and 312 with a minimum GPA of 3.5.

Completion of the departmental honors program requires that students maintain a minimum overall GPA of 3.5 and a minimum GPA of 3.5 in economics courses. Four of the upper-level ECON courses to complete the major must be designated as honors courses; students will complete supplemental research in these courses under the guidance of the instructor.

Students must attain a minimum GPA of 3.75 in their upper-level honors courses. Interested students should contact their major advisor or the departmental honors advisor for complete information on departmental honors.

Special Opportunities

The department awards several scholarships to qualified undergraduates. For more information about these opportunities, visit our Web site at www.umbc.edu/economics.

Student Organizations

Political Economy Club

UMBC's Political Economy Club brings economics majors together for job seminars, visits to local businesses, social events and an annual awards banquet.

Omicron Delta Epsilon

The campus also has a chapter of Omicron Delta Epsilon, the international honor society for economics students.