Some disciplines train you to be a specialist. The economics discipline is a way of thinking about the world and the factors that influence and shape human actions. Economists have applied their science to the study of many forms of human endeavor. A major in economics gives students a way of analytically reasoning through problems. Whether they are interested in a career in private industry, government, public policy or the nonprofit sector, a degree in economics provides them with the tools to succeed. Being in a vibrant metropolitan area offers a great many advantages to our students, including access to internships with many top firms and organizations within the Milwaukee metro area. Our internships are carefully designed to guarantee that students attain valuable work experience. Students can even gain an inside track on jobs with those firms once they graduate. Our alumni have gone on to successful careers in many different areas including, but not limited to, policy analysts, practicing attorney, futures traders, banking analysts and business consultants.

Major in Economics

The major in economics consists of ten courses (30 credit hours) in economics: five required courses (15 credit hours) and 15 additional credit hours of upper division economics courses.

- In addition to the economics courses, two mathematics and statistics courses (6-8 credit hours) are required as listed below.
- Social Science Requirement: Two courses from one or more of the following programs: ANTH, CRLS, POSC, PSYC, SOCI, SOWJ. Courses with the ANTH subject code cannot be chosen from ANTH 1201 (https://bulletin.marquette.edu/search/?P=ANTH%201201) or ANTH 2201 (https://bulletin.marquette.edu/search/?P=ANTH%202201).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1103</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1104</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3003</td>
<td>Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3004</td>
<td>Intermediate Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4060</td>
<td>Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives - Choose five upper-division ECON courses.</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours:</strong></td>
<td><strong>30</strong></td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 1400</td>
<td>Elements of Calculus (or equivalent or higher-level calculus course)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and Modern Elementary Statistics (or equivalent or higher-level statistics course)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours:</strong></td>
<td><strong>6</strong></td>
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</table>

**Note:**
- A minimum grade of C must be earned in each of the ECON courses.
- Students contemplating graduate study in economics should take MATH 1450 Calculus 1 and MATH 1451 Calculus 2.
- Students may not take both ECON 3001 Applied Business Economics and ECON 3003 Intermediate Microeconomic Analysis for credit. Since ECON 3003 Intermediate Microeconomic Analysis is a required course, students cannot take ECON 3001 as an elective course for credit.

Economics B.A./M.S.A.E. Accelerated Degree Program

The Department of Economics offers a special five-year program enabling students to earn an undergraduate degree and a Master of Science degree in Applied Economics (M.S.A.E.). For information, consult the Graduate School of Management Bulletin or contact the Department of Economics.

Minor in Economics

The minor in Economics consists of 18 credit hours: two required courses (6 credit hours) and four upper division economics electives (12 credit hours). In addition to the economics course requirements, a basic statistics course (3 credit hours) is required as listed below.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1103</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1104</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives - Choose four upper-division ECON courses. 12

Total Credit Hours: 18

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1700</td>
<td>Modern Elementary Statistics (or equivalent or higher-level statistics course)</td>
<td>3</td>
</tr>
</tbody>
</table>

Note:

- Students minoring in Economics are urged to complete one of the following mathematics sequences listed below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1390 &amp; MATH 1400</td>
<td>Finite Mathematics and Elements of Calculus</td>
<td>6</td>
</tr>
<tr>
<td>or</td>
<td>MATH 1450 &amp; MATH 1451</td>
<td>Calculus 1 and Calculus 2</td>
</tr>
</tbody>
</table>

Department of Public Instruction Certification

To pursue Department of Public Instruction certification, College of Education students are required to complete the following requirements for a major in Economics. The major consists of 27 credit hours: four required courses (12 credits) and 15 additional credit hours of upper-division work selected from Groups I - III. An additional 9-11 credit hours in basic statistics and mathematics courses are required as listed below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1103</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1104</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3003</td>
<td>Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3004</td>
<td>Intermediate Macroeconomic Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Upper-Division Courses from Groups I-III as listed below:

Group I: Choose one of the following courses. 3

- ECON 4008 Economics and Law
- ECON 4070 Economics and Ethics

Group II: Choose two of the following courses. 6

- ECON 4006 Industrial Organization
- ECON 4010 Public Finance
- ECON 4012 Urban and Regional Economics
- ECON 4016 Environmental and Natural Resource Economics
- ECON 4020 Economics of Labor Markets
- ECON 4080 Money, Banking and Monetary Policy

Group III: Choose one of the following courses. 3

- ECON 4040 International Economic Issues
- ECON 4044 Global Integration of Financial Sectors
- ECON 4045 Comparative Economic Systems
- ECON 4046 International Trade
- ECON 4047 Development Economics

Economics Elective: Choose one additional upper-division ECON course. 3

Total Credit Hours: 27
Economics

Additional Mathematics Courses Required:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the following sequences:</td>
<td></td>
</tr>
<tr>
<td>MATH 1390 &amp; MATH 1400</td>
<td>Finite Mathematics and Elements of Calculus (or equivalent)</td>
<td>6-8</td>
</tr>
<tr>
<td>MATH 1450 &amp; MATH 1451</td>
<td>Calculus 1 and Calculus 2</td>
<td></td>
</tr>
</tbody>
</table>

Required Statistics Course:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1700</td>
<td>Modern Elementary Statistics (or equivalent)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours: 9-11

Economic-International Courses

Applied Global Business Learning is a short-term applied global business service learning experience. Under the direction of the instructor, students work with a foreign business venture to solve business problems. In the classroom setting, students learn about the history and culture of the country, as well as the experiences of individuals who have completed a global service project in the region. Students also have the opportunity to learn the realities of developing country business problems. Students help develop a business case solution for the selected project and travel to the location for implementation. Upon completion of the in-country experience, students prepare a post trip report for both the instructor and the entrepreneur and participate in a reflection retreat. Taught in an international setting by Marquette professors and where students earn Marquette credit. Study Abroad expenses apply. Prereq: All application materials completed and cons. of instr.; Jr. stndg.; and cons. of the Office of International Education.

Economics Courses

ECON 1001. Introduction to Economics, 3 cr. hrs.
An introductory survey of economic issues for non-majors with an emphasis on using economic concepts as elements of critical reasoning. Microeconomic topics include markets and the role of government in a market economy. Macroeconomic topics include the banking system, inflation and unemployment. International issues include the balance of trade and foreign exchange. Will not be counted towards the Economics major. Not available for students enrolled in the College of Business Administration.

ECON 1103. Principles of Microeconomics, 3 cr. hrs.
Institutions and processes of market specialization and exchange. Supply and demand and their determinants. Pricing and production decisions of the firm under varying competitive conditions. The role of government in a modern mixed economy. Microeconomic analysis applied to selected economic problems.

ECON 1103H. Honors Principles of Microeconomics, 3 cr. hrs.
Institutions and processes of market specialization and exchange. Supply and demand and their determinants. Pricing and production decisions of the firm under varying competitive conditions. The role of government in a modern mixed economy. Microeconomic analysis applied to selected economic problems. As an Honors Program course, includes a more intensive research or project component. Prereq: Admission to Marquette University Honors Program.

ECON 1104. Principles of Macroeconomics, 3 cr. hrs.

ECON 1104H. Honors Principles of Macroeconomics, 3 cr. hrs.
Processes and determinants of overall economic activity and growth. National income accounting, determination of aggregate income, employment, and the price level. Money and banking, government monetary and fiscal policy, and international economics. As an Honors Program course, includes a more intensive research or project component. Prereq: ECON 1103 and admission to Marquette University Honors Program.

ECON 1930. Special Topics in Economics, 1-3 cr. hrs.
Offered as an experimental course to evaluate and determine if a course should be incorporated into the regular curriculum of a program, or courses in the approval process pipeline, but not yet officially approved. Once the same course has been offered twice as a Special Topic, it cannot be offered again until it moves through the curriculum approval process and is approved with a regular curriculum course number.

ECON 3001. Applied Business Economics, 3 cr. hrs.
For non-economics majors who want to apply economic tools to solve problems. Focuses on the explanation and development of key economic principles and models that are relevant to business analysis and managerial decision-making. Introduces and develops skills in the practice of using economic models, finding and gathering necessary data and statistical techniques for the purpose of aiding business decision-making. Additionally, the usefulness and limitations of such models, data and techniques are scrutinized. Required for all economics minors but does not satisfy the requirements for upper-level economics courses for economics majors. Students may not take both ECON 3001 and ECON 3003 for credit. Prereq: ECON 1103, ECON 1104; and BUAD 1560 or equiv.
ECON 3003. Intermediate Microeconomic Analysis. 3 cr. hrs.
Reviews the tools of supply and demand analysis. Studies the market behavior of consumers and business firms and the way they interact with each other and with public policy. Applies market theory to questions of resource allocation efficiency, changing market conditions, optimal pricing and output strategies and to important social issues of the day. Students may not take both ECON 3001 and ECON 3003 for credit. Prereq: ECON 1103; ECON 1104; MATH 1400 or equiv.

ECON 3004. Intermediate Macroeconomic Analysis. 3 cr. hrs.
Determines levels of aggregate output, employment and prices. Describes available policy variables and their impacts upon the money, bond, goods and labor markets. Looks at inflation and unemployment, international macroeconomic interrelationships and fundamentals of the economic growth process. Prereq: ECON 1103; ECON 1104; MATH 1400 or equiv.

ECON 3399. The College Fed Challenge. 3 cr. hrs.
Students apply their understanding of economics and financial markets using oral communication and visualization skills as part of the College Fed Challenge competition. Preparation includes analysis of the domestic and global economies and financial markets; presentation requires real-time application of problem-solving and critical thinking skills. Prereq: ECON 3003, ECON 3004, Jr. stndg.; ECON, BUEC or INAM major or ECON minor; and cons. of instr.

ECON 3986. Internship Work Period. 0 cr. hrs.
SNC/UNC grade assessment. Prereq: ECON 3001 or ECON 3003; cons. of prog. dir. and cons. of Business Career Center.

ECON 4005. Sports Economics. 3 cr. hrs.
Application of relevant statistical tools and economic models to the economics of sports. One major aspect applies those tools and models to investigate the behavior of athletes and coaches. A second major aspect deals with business aspects of sports, including topics such as the organization of sports franchises and leagues, the public financing of stadiums, and labor issues including compensation and discrimination. Prereq: ECON 1103 and 1104.

ECON 4006. Industrial Organization. 3 cr. hrs.
Examines the interaction of firms with their competitors, their customers and government regulators. Covers oligopoly models that lie between the extremes of perfect competition and perfect monopoly. Additional topics may include the economic analysis of price discrimination, durable goods, advertising, mergers, vertical integration, collusion, auctions and innovation. Prereq: ECON 1103 and ECON 1104.

ECON 4008. Economics and Law. 3 cr. hrs.
Relationship between the rights and obligations which the legal system confers on individuals and the allocation of resources which results from alternative assignments of legal rights. Uses and limitations of economic analysis in explaining the process by which legal rights are conferred. Prereq: ECON 1103 and ECON 1104.

ECON 4010. Public Finance. 3 cr. hrs.

ECON 4012. Urban and Regional Economics. 3 cr. hrs.

ECON 4016. Environmental and Natural Resource Economics. 3 cr. hrs.
Economic analysis of environmental and natural resources including land, air, and water. Special emphasis on the role of human values and economic institutions in resource exploitation. Topics covered include air and water pollution, energy, ocean resources, forestry practices, mineral resources, the population problem, and agriculture. Prereq: ECON 1103 and ECON 1104.

ECON 4020. Economics of Labor Markets. 3 cr. hrs.
Supply and demand conditions unique to markets for services of human beings. The economics of investment and disinvestment of human capital. Topics include: determination of labor force size, geographic distribution and qualitative aspects; economic effects of institutional arrangements and labor laws; current issues. Prereq: ECON 1103 and ECON 1104.

ECON 4022. Economics of Healthcare and Health Policy. 3 cr. hrs.
An introduction to healthcare and health policy from an economics perspective. Covers the demand for and supply of healthcare, moral hazard, adverse selection, and health insurance markets (public and private) using economic evaluation techniques. Also covers the ongoing federal healthcare reform as the Patient Protection and Affordable Care Act of 2010 is the largest piece of health legislation in decades and is dramatically changing the underlying structure and operation of the healthcare sector. Discuss the value of health, externalities and public health, cost containment and managed care in addition to several other health topics. The main goal is to better understand the issues and debates in the vast and rapidly growing field of health economics. Prereq: ECON 1103 and ECON 1104.

ECON 4040. International Economic Issues. 3 cr. hrs.
Survey of international economics. Basis for and welfare effects of international trade, commercial policies, and economic growth. International organizations, trading regions, and trade accords. Balance of payments concepts and exchange rate theories. History and theory of international monetary systems including fixed versus flexible exchange rates. Note: Credit not given, including credit to fulfill any Discovery Tier requirements, if simultaneously enrolled in or have already completed either ECON 4044 or ECON 4046 for credit. Prereq: ECON 1103 and ECON 1104.
ECON 4044. Global Integration of Financial Sectors. 3 cr. hrs.
As the world gets smaller, exchange rate management and policies as well as their international coordination and conflict become increasingly important. With the context of current issues, the application of market concepts are used to understand institutional behavior as well as investment decisions. Ideas include historical context and application to financial and/or economic crises around the globe. Note: A student may not receive credit for ECON 4040 if taken simultaneously with or upon successful completion of ECON 4044. Prereq: ECON 1103 and ECON 1104.

ECON 4045. Comparative Economic Systems. 3 cr. hrs.
An analysis and description of economies as they evolved from ancient societies through today. Analyze the effects of alternative systems on social and economic behavior under differing levels of technology and development. Compare the economic behavior and policy between socialistic markets and capitalistic markets as the development reaches present-day levels. Prereq: ECON 1103 and ECON 1104.

ECON 4046. International Trade. 3 cr. hrs.
Sources, patterns, and welfare implications of international trade. Empirical investigations of traditional trade theories. Arguments for and impact of commercial policies. Trade effects of economic growth. Imperfect competition and intra-industry trade as alternatives to traditional theories and views. Note: A student may not receive credit for ECON 4040 if taken simultaneously with or upon successful completion of ECON 4046. Prereq: ECON 1103 and ECON 1104.

ECON 4047. Development Economics. 3 cr. hrs.
Development economics considers the current conditions under which the majority of the world lives. From the context of the UN development goals, consider the similarities among these nations from their inception as well as the myriad of problems that have evolved. Consider why current economic models cannot provide a magic solution to the issues and gives students a chance to create their own solutions to problems they find. Prereq: ECON 1103 and ECON 1104.

ECON 4049. Public Policy and Finance in Latin American Cities. 3 cr. hrs.
Explores how Latin American cities finance public goods and services and examines the public policy debates regarding local governments’ provision of these goods and services. The first part of the course uses basic public finance theory to analyze issues such as local government taxes, user fees, intergovernmental fiscal relations, land-based financing tools and participatory budgeting. The second part of the course examines specific public policy challenges that Latin American cities face, such as public provision of water and sewerage services, housing, transportation and environmental issues and urban poverty. Prereq: ECON 1103 and ECON 1104.

ECON 4060. Introduction to Econometrics. 3 cr. hrs.
Designed to teach how to build an econometric model and to make forecasts using it. Models are constructed to explain phenomena that are observed frequently in business, economics and the social sciences. Linear regression analysis is employed and both single-equation and multi-equation models are investigated. Of practical value to economists, businessmen, engineers, statisticians, and other professionals for whom applied quantitative techniques are important. Prereq: ECON 1103, ECON 1104, and MATH 1700 or equiv.; or ECON 1103, ECON 1104, and BUAD 1560 or MANA 2028 or equiv.

ECON 4065. Mathematical Economics. 3 cr. hrs.
Designed to give students the quantitative background required to appreciate the use of mathematics in economic analysis. Emphasis is on developing important techniques. However, many economic applications are incorporated in order to demonstrate how standard economic models can be developed in mathematical terms. Topics include matrix algebra, differential calculus, both constrained and unconstrained optimization and comparative statistics. Prereq: ECON 1103, ECON 1104 and one of the following: MATH 1400, MATH 1410, MATH 1450, MATH 1451, MATH 1455 or MATH 2450.

ECON 4070. Economics and Ethics. 3 cr. hrs.
Examines the relationship between economics and ethics, or how moral values and ethical reasoning underlie both the science of economics and the operation of the economy. Aim of the course is to introduce students to the role of ethical reasoning in economics and economic life, and thereby help create a capacity on their part for ethical reflection and action in connection with economic policy and individual economic experience. Prereq: ECON 1103 and ECON 1104.

ECON 4072. Behavioral Economics. 3 cr. hrs.
An introduction to behavioral economics. Traditional economic models assume that people have perfect rationality and perfectly process all available information. Behavioral economics relaxes some of the assumptions made about people to reconcile traditional models with real world observations. Coverage of behavioral economic theory is presented by emphasizing empirical results from lab experiments and the real world, and investigating some public policy implications. Prereq: ECON 1103 and ECON 1104.

ECON 4080. Money, Banking and Monetary Policy. 3 cr. hrs.

ECON 4931. Topics in Economics. 1-3 cr. hrs.
Lectures and discussions in an area which, because of its topicality, is not the subject of a regular course. Topics are designated in the Schedule of Classes. Prereq: Jr. stndg.; ECON 1103 and ECON 1104.

ECON 4986. Economics Internship - Grading Period. 3 cr. hrs.

ECON 4989. Economics Internship - Work and Grading Period. 3 cr. hrs.
S/U grade assessment. Prereq: ECON 3001 or ECON 3003; cons. of prog. dir. and cons. of Business Career Center.
ECON 4995. Independent Study in Economics. 1-4 cr. hrs.
Faculty-supervised, independent study/research of a specific area or topic in economics. Prereq: Cons. of dept. ch.