Economics (ECON)

Course information contained within the Bulletin is accurate at the time of publication in June 2025 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

ECON 0858. The American Economy. 3 Credit Hours.
Should the federal government more forcefully engage health care issues, or are its current obligations a hidden time bomb facing the federal budget? Should we be concerned about the outsourcing of U.S. jobs? Is the minimum wage too low, or will increases in the minimum simply lead to greater unemployment? Students will engage these and other pressing issues, write position papers advocating specific actions that governments or firms should take, and debate these recommendations. While economic theory is not the centerpiece of this course, students will learn enough economic theory to be able to discuss policy in an informed manner. They will also be introduced to important sources of "economic" information, from government web sites to major publications. NOTE: This course fulfills the U.S. Society (GU) requirement for students under GenEd and American Culture (AC) for students under Core. Students cannot receive credit for ECON 0858 if they have successfully completed SOC 0858.

Course Attributes: GU

Repeatability: This course may not be repeated for additional credits.

ECON 1001. Introduction to the Economy. 3 Credit Hours.
Discussion of what economics is all about. Provides an overview of how a market economy operates, what it does well, what it may not do so well, and what could be done instead. The concepts of economic analysis are developed and applied to discussing some of the current economic problems the world is facing. NOTE: (1) This course is designated for students who are not business or economics majors. Students planning to take 2000, 3000 or 4000 level economics courses may have to take Economics 1101 or 1102 in addition to Economics 1001. Look at prerequisites for a particular course to see if 1101 or 1102 is specified. (2) This course can be used to satisfy the university Core Individual and Society (IN) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: IN

Repeatability: This course may not be repeated for additional credits.

ECON 1101. Macroeconomic Principles. 3 Credit Hours.
An introductory course in macroeconomics. Topics include business cycles, inflation, unemployment, banking, monetary and fiscal policy, international economics, and economic growth. NOTE: (1) Economics 1101 and 1102 may be taken in any order. (2) This course can be used to satisfy the university Core Individual and Society (IN) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: IN

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (MATH 0702, SCTC 1021, any course with attribute "QA", any course with attribute "QB", 'Y' in MC3, 'Y' in MC4, 'Y' in MC5, 'Y' in MC6, 'Y' in STA1, 'Y' in STA2, 'Y' in MC3A, 'Y' in MC6A, 'Y' in ST1A, 'Y' in ST2A, 'Y' in MC3S, 'Y' in MC3D, 'Y' in MC3O, 'Y' in MC3T, or 'Y' in MC6T)

ECON 1102. Microeconomic Principles. 3 Credit Hours.
An introductory course in microeconomics. Topics include the market system, supply and demand, cost, competition, monopoly, oligopoly, factor markets, and public goods. NOTE: (1) Economics 1101 and 1102 may be taken in any order. (2) This course can be used to satisfy the university Core Individual and Society (IN) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: IN

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (MATH 0702, SCTC 1021, any course with attribute "QA", any course with attribute "QB", 'Y' in MC3, 'Y' in MC4, 'Y' in MC5, 'Y' in MC6, 'Y' in STA1, 'Y' in STA2, 'Y' in MC3A, 'Y' in MC6A, 'Y' in ST1A, 'Y' in ST2A, 'Y' in MC3S, 'Y' in MC3D, 'Y' in MC3O, 'Y' in MC3T, or 'Y' in MC6T)

ECON 1103. Global Economics. 3 Credit Hours.
This course is designed to introduce non-majors to key terms and concepts economists use to analyze questions related to economic growth and development. Global economic issues to be discussed include questions such as persistence of underdevelopment, free trade vs. protectionism, migration, and the role of multinational corporations. NOTE: (1) May not be taken by FSBM students as a substitute for Economics 1101, 1102, 1901, or 1902. (2) This course can be used to satisfy the university Core International Studies (IS) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: IS, SI

Repeatability: This course may not be repeated for additional credits.

ECON 1901. Honors Macroeconomic Principles. 3 Credit Hours.
An introductory course in macroeconomics. Topics include business cycles, inflation, unemployment, banking, monetary and fiscal policy, international economics, and economic growth. NOTE: (1) 1901 is the honors course. It usually requires additional reading and writing assignments. (2) This course can be used to satisfy the university Core Individual and Society (IN) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: HO, IN

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (MATH 0702, any course with attribute "QA", any course with attribute "QB", 'Y' in MC3, 'Y' in MC4, 'Y' in MC5, 'Y' in MC6, 'Y' in STA1, 'Y' in STA2, 'Y' in MC3A, 'Y' in MC6A, 'Y' in ST1A, 'Y' in ST2A, 'Y' in MC3S, 'Y' in MC3D, 'Y' in MC3O, 'Y' in MC3T, or 'Y' in MC6T)

ECON 1902. Honors Microeconomic Principles. 3 Credit Hours.
An introductory course in microeconomics. Topics include the market system, supply and demand, cost, competition, monopoly, oligopoly, factor markets, and public goods. NOTE: (1) 1902 is the honors course. It usually requires additional reading and writing assignments. (2) This course can be used to satisfy the university Core Individual and Society (IN) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: HO, IN

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (MATH 0702, any course with attribute "QA", any course with attribute "QB", 'Y' in MC3, 'Y' in MC4, 'Y' in MC5, 'Y' in MC6, 'Y' in STA1, 'Y' in STA2, 'Y' in MC3A, 'Y' in MC6A, 'Y' in ST1A, 'Y' in ST2A, 'Y' in MC3S, 'Y' in MC3D, 'Y' in MC3O, 'Y' in MC3T, or 'Y' in MC6T)

ECON 2000. Special Topics/Non-Majors. 3 Credit Hours.
Topics vary. See academic advisor for a description.

Repeatability: This course may be repeated for additional credit.

ECON 2061. Foundations of Macroeconomic Development. 3 Credit Hours.
This course provides students with the tools to understand current and historic events in the world economy. We will study selected models in economic growth, international trade, and international finance. The theoretical background will then be used as the basis for discussion of international economic policy issues. Note: This course does not count towards the major or minor in Economics.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102, ECON 1902, or ECON 1103) and (MATH 0702, 'Y' in MC3, 'Y' in MC4, 'Y' in MC5, 'Y' in MC6, 'Y' in MC3A, 'Y' in MC6A, or 'Y' in MC3S)

ECON 2408. Economics of Everyday Choices. 3 Credit Hours.
This course discusses key economic concepts that play an important role in major life choices. Particular emphasis is placed on financial decisions, such as saving for retirement, house and car purchases, and financing college education. These personal financial decisions are placed into their macro-economic context; topics such as inflation, interest rates, and banking are discussed. Using a calculator and basic mathematical concepts, students learn how to access and evaluate government and private data pertaining to each of the topics of the course. Duplicate Credit Warning: Students will only receive credit for one of these: ECON 2408 or ECON 3408. Note: This course is designed for non-majors and will not count towards the major in Economics or Mathematical Economics. Students majoring in Economics or Mathematical Economics may take this as a non-major elective only.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

ECON 2585. Internship. 1 to 12 Credit Hour.
This course is intended to combine work experience with long-term learning goals. Students who have obtained a qualified internship can enroll. Each student will maintain regular contact with the instructor of the course, and will complete a series of written assignments. These written assignments will give progressively more in depth analyses of the place of the internship. The objective is to gain awareness of the purpose of the organization, its function in society, its challenges, and the decisions that it needs to make regarding its long-term goals. The student will report not only on his or her own activities, but also on the long-term goals and challenges of the organization. An internship is both an entry level position for an organization, and an opportunity to explore the needs of that organization, and to begin to think about broader issues, such as those that a leader or president with that organization might address one day.

Repeatability: This course may be repeated for a total of 12 credit.

ECON 3062. Economics of Global Poverty. 3 Credit Hours.
This course will introduce students to the microeconomics foundations of development and the economic lives of the poor in low- and middle-income countries. Topics include measurement of poverty, inequality, and human development.

Course Attributes: SF

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102, ECON 1103, or ECON 1902) and (MATH 0702, any course with attribute "QA", any course with attribute "QB", 'Y' in MC3, 'Y' in MC4, 'Y' in MC5, 'Y' in MC6, 'Y' in STA1, 'Y' in STA2, 'Y' in MC3A, 'Y' in MC6A, 'Y' in ST1A, 'Y' in ST2A, or 'Y' in MC3S)

ECON 3408. Economics for Life. 3 Credit Hours.
Increasingly, people are expected to make their own personal financial choices. Economics, which is often defined as the study of choice, provides a structure for making these decisions. This course is designed to help a student, regardless of his or her major, to understand what options are available with respect to a given financial choice and how to go about deciding which one is best in terms of that student's preferences. Among the financial choices that may be discussed are: whether to rent or buy a house or apartment, whether to accept a current job offer or wait for a better one, and when and how much to begin setting aside for retirement.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3501. Intermediate Microeconomic Analysis. 3 Credit Hours.
An intermediate treatment of microeconomic theory and applications. Topics include consumer behavior, production, costs, perfect competition, imperfect competition, factor markets, public goods, and market failure. NOTE: This theory course is designed for economics, finance, and actuarial science majors with analytic skills. It is required for all Economics majors. It is not recommended for non-majors who earned less than B- in Economics 1101 or 1102. Students who have received credit for ECON 3701 may not register for this course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3502. Intermediate Macroeconomic Analysis. 3 Credit Hours.
An intermediate treatment of macroeconomic theory and policy. Following a discussion of the important macroeconomic sectors, static and dynamic macroeconomic models are developed. Unemployment, inflation, business cycles, monetary and fiscal policy, economic growth, and the balance of payments are then analyzed using these models. NOTE: This theory course is designed for economics, finance, and actuarial science majors with analytic skills. It is required for all Economics majors. Not recommended for non-majors who earned less than B- in Economics 1101 or 1102. Students who have earned credit for ECON 3702 may not register for this course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3503. Introduction to Econometrics. 3 Credit Hours.
Introduction to the theory and practice of econometrics. Topics include a review of basic statistics, simple regression, multiple regression, dummy variables, autocorrelation, heteroscedasticity, and model specification. Applications in economics are stressed. Problem sets, computer estimation of economic relationships, and a data analysis paper are required. This course is strongly recommended for Economics majors. NOTE: Not recommended for non-majors who earned less than B- in Economics 1101 or 1102.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW), (ECON 1102 or ECON 1902), and (STAT 2103, STAT 2903, MATH 3031, STAT 2101, or MATH 2031)

ECON 3504. Mathematical Economics. 3 Credit Hours.
Elements of set theory, calculus, and matrix algebra are presented and used to analyze mathematical models from economic theory, econometrics, management science, and statistics. This course is strongly recommended for Economics majors.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW), (ECON 1102 or ECON 1902), and (MATH 1031, MATH 1041, MATH 1941, MATH 1038, or 'Y' in MATW)

ECON 3506. Energy, Ecology, and Economy. 3 Credit Hours.
After surveying the elements of energy and ecology, and reviewing the basics of economics, this course investigates the interaction of the three. Each of the major nonrenewable and renewable energy sources is examined in light of its "eco-feasibility." The potential of energy conservation is examined, and the need for energy/environmental/economic (3-E) policy is debated. Some speculations about future 3-E scenarios are offered, as the U.S. and the rest of the world face their energy, ecological, and economic problems.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3507. Health Economics. 3 Credit Hours.
Problems of efficient production and the equitable distribution of health-related services. Policy-oriented material with comprehensive review of standard microeconomic theory in the context of supplier-dependent consumer decisions, third-party payers, and not-for-profit producers. NOTE: Students will receive credit only once for either ECON 3507 or ECON 3597.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3511. The Economics and Management of Privatization. 3 Credit Hours.
This course introduces students to the new trend of shifting delivery of services and responsibilities from governments and non-profit organizations to the private sector. It includes North American and international experiences. This course provides public economics theoretical models, as well as description and evaluation of experiences in the fields of justice, transportation, education, health, and welfare. The course will further suggest models of the privatization process.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3512. Public Economics. 3 Credit Hours.
Public economics is the study of government policies and their impact on the economy. This course provides an overview of the economic theories and empirical evidence that inform public policy decisions. The course covers a broad range of topics, including taxation, public goods, market failures, externalities, public expenditure, and social welfare programs. Note: This course was titled "Public Finance" prior to Summer 2025. Students who earned credit under the prior title will not earn additional credits.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3513. Economics of State and Local Governments. 3 Credit Hours.
Economic problems confronting state and local governments. Topics include intergovernmental relationships, the response of state and local governments to problems of urbanization, and the impact of state and local taxes and expenditures.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3514. The Economics of Education and Human Capital. 3 Credit Hours.
This course will focus on an analysis of the market for education in the United States, including both K-12 and higher education. We will discuss how our education system is currently organized (e.g. how schools are funded), and the implications this has for students and the economy as a whole. We will examine and critically evaluate scientific studies related to key questions in the policy debate, such as "How does a smaller class size impact student outcomes?", or "What are the biggest problems with the student loan system?"

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902), (ECON 1101 or ECON 1901), and STAT 2103.

ECON 3519. Game Theory and Strategic Behavior. 3 Credit Hours.
Game theory is a fundamental tool to analyze economic and social interactions. It has been widely used in economics, management science, sociology, political science, computer science, biology, and other areas. In this course, you will study essential concepts in game theory, such as strategic/ extensive form and Nash/subgame perfect equilibrium, and master their application to various situations in economics, business, society, and daily life.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902) and (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080, or 'Y' in MATW)

ECON 3522. Economic Theory of Networks. 3 Credit Hours.
This course presents an overview of networks with emphasis on social networks, online and offline. The student will learn the basic mathematical techniques for representing networks as well as techniques from game theory and economics for the analysis of network structure and evolution.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3525. Urban Economics. 3 Credit Hours.
This course introduces students to the concepts, methods and the core models used by economists to study not only cities, towns and regions and their relationships with each other, but, more generally, the interesting spatial aspects and spatial outcomes of decision-making by households and firms. The course will examine the determinants of the characteristics and structure of urban and regional areas (both intra-urban and inter-urban), and consider the causes and consequences of city, suburban and regional development, growth, and decline. We will discuss how issues related to poverty, housing, transportation and education are closely intertwined with the spatial decisions of households and firms. An important component of this course will be the study of the impact and relationship of local, state and federal government tax, spending, and land-use policies on urban and regional economies.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3531. History of Economic Theory. 3 Credit Hours.
The development of economic analysis from the pre-classical period to the neo-classical tradition that dominates contemporary mainstream economic thinking; emphasis on the work of Adam Smith, Malthus, Ricardo, the Marginalists, Marx, and Marshall.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3532. Economic History of the United States. 3 Credit Hours.
An overview of the forces that influence economic development and growth. Topics include alternative theories of development, empirical studies of the development process, and the role of non-economic factors in helping or hindering economic progress.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102, ECON 1103, or ECON 1902)

ECON 3535. Public Control of Business: Antitrust. 3 Credit Hours.
An overview of U.S. antitrust policy as applied to monopoly, mergers, price discrimination, tying agreements, and patents. Includes analysis of antitrust issues in law, medicine, and professional sports. The relative merits of government ownership, regulation, and antitrust policy are examined.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3536. Economics of American Industry. 3 Credit Hours.
Examines the competitive and monopolistic features of American industry and their effect on product prices and quality, the distribution of income, the rate of technological progress, and, among others, the efficient utilization of scarce resources, and economic rationale for the antitrust laws.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3537. Comparative Economic Systems. 3 Credit Hours.
The course highlights how two economic models - market and government control - are combined and applied in different societies. Specifics are studied for the following cases: (1) the U.S., with traditionally lowest government involvement in economic activity; (2) West European countries, with both market and socialist oriented institutions; (3) the former Soviet Union and Central European countries, which rejected complete government control and are being transformed into market economies; and (4) China, where the government keeps control of big business and allows economic freedom for small business and agriculture. An important consideration is how various systems promote economic growth and withstand crises.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102, ECON 1103, or ECON 1902)

ECON 3538. Managerial Economics. 3 Credit Hours.
The application of microeconomic principles to business planning and decision-making. Topics include demand estimation, cost analysis, and production planning.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3541. The Economics of Sports. 3 Credit Hours.
This course introduces students to a variety of economic disciplines through the prism of professional and amateur sports. Students confront industrial organization and anti-trust issues involving sports leagues, public finance issues involving the relationship between cities and franchises, and labor issues involving reward systems, unions and discrimination. The course concludes with an analysis of collegiate sports and the NCAA.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3543. Law and Economics. 3 Credit Hours.

This course provides an introduction to the economic analysis of law. The course employs microeconomics to develop a behavioral model of response to legal rules. Topics covered include the common laws of property, contract, and tort as well as an extended discussion of intellectual property.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3544. Computer-Based Modeling. 3 Credit Hours.

This course covers the fundamentals of computer-based modeling in economics. Students will learn essential programming skills to build and test micro and macroeconomic data-driven models, interpret economic trends and patterns, and gain insight into real-world economic issues. No prior programming experience is required.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW), (ECON 1102 or ECON 1902), and (MATH 1031, MATH 1041, MATH 1941, MATH 1038, STAT 1102, STAT 1902, or 'Y' in MATW)

ECON 3545. Economics of Labor Markets. 3 Credit Hours.

Examines the nature of labor market equilibrium. Topics include fertility and migration, the allocation of time and occupational choice, human capital, and discrimination.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3546. Women in the Economy. 3 Credit Hours.

A course in labor economics with specific application to women in paid and unpaid employment. The course explores alternative economic theories of the labor market and economic approaches to discrimination as well as historic changes in the nature of unpaid and paid work. These theories are then applied to the economic situation of women in the U.S. and other societies.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3547. Economics of Development and Growth. 3 Credit Hours.

The course concentrates on issues of growth and development for a variety of world economies. The issues covered include topics such as scarcity of resources, interaction between market and government control, role of technology and human capital, and inequality and poverty. Specific tools include the measurement of economic growth and standards of living, conduct of macroeconomic policy, models of international trade, and instruments of global capital markets.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3548. Behavioral Economics. 3 Credit Hours.

This upper-level course, provides a solid foundation for understanding the new field of Behavioral Economics. It takes rational choice theory as a point of departure and then presents the findings of Behavioral Economics, explaining how these findings either support or call for a revision to the rational expectations model. The course uses multidisciplinary findings from psychology, experimental economics, neuroscience and evolutionary psychology to enhance our understanding of how humans make economics decisions and how incentives influence those decisions. Not only CLA economic majors, but also other CLA and FSBM students should be interested in this course, as it deals with the basis of all human decision-making. Students who have earned credit in ECON 3696 will not receive additional credits.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3563. International Trade. 3 Credit Hours.

An examination of the basic theories of international trade, commercial policy, and factor movements. Topics may include the relation between trade and economic growth, global aspects of U.S. trade policy, international trade agreements, and protectionism. NOTE: Not recommended for non-majors who earned less than B- in Economics 1101 or 1102.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3564. International Monetary Economics. 3 Credit Hours.

The analysis of the balance of payments and foreign currency markets. Topics include the international payments system, foreign investment and debt, and exchange rate regimes. NOTE: Not recommended for non-majors who earned less than B- in Economics 1101 or 1102.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3571. Money and Banking. 3 Credit Hours.

This course explores the role of the banking and monetary institutions within a modern developed economy, with an emphasis on the United States. (1) We will analyze financial intermediation and the role of banks in the economic system, place them in historical context, and discuss the economic rationale behind banking regulation. (2) We will study the role of money and the Federal Reserve in the U.S. economic and financial system. (3) We will discuss the instruments and goals of monetary policy.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3572. Owl Fund Seminar I. 3 Credit Hours.

This course provides students with the in-depth training in applied business economics to support the William C. Dunkelberg Owl Fund as part of the economics team. Students provide business conditions forecasts by sector incorporating data from FRED, Bloomberg, etc. including development of visually effective charts. In addition, the economics team is responsible for determining over versus under weighting of sectors based on their macro analysis. Permission of the instructor is required for admission.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101 or ECON 1901) and (ECON 1102 or ECON 1902)

ECON 3580. Special Topics. 3 Credit Hours.

Special topics in current developments in the field of economics.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3581. Co-op Experience in Economics. 3 Credit Hours.

Students undertake a research project that integrates their current work experience with their classroom experience at Temple University. The results are reported in a 10 to 20-page paper prepared under the supervision of a faculty member. NOTE: Fox students should contact the Center for Student Professional Development (CSPD; www.sbm.temple.edu/cspd/; 215-204-2371) for permission to enroll in this course. All other students should contact the Economics Department Coordinator (Ritter Annex 873; 215-204-8880).

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3582. Independent Study. 1 to 6 Credit Hour.

Directed reading and/or writing assignments under supervision of a faculty member.

Repeatability: This course may be repeated for additional credit.

ECON 3596. Energy, Ecology, and Economy. 3 Credit Hours.
After surveying the elements of energy and ecology, and reviewing the basics of economics, this course investigates the interaction of the three. Each of the major nonrenewable and renewable energy sources is examined in light of its "eco-feasibility." The potential of energy conservation is examined, and the need for energy/environmental/economic (3-E) policy is debated. Some speculations about future 3-E scenarios are offered, as the U.S. and the rest of the world face their energy, ecological, and economic problems.

Course Attributes: SE, SF, SP, WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3597. Health Economics. 3 Credit Hours.
Problems of efficient production and the equitable distribution of health-related services. Policy-oriented material with comprehensive review of standard microeconomic theory in the context of supplier-dependent consumer decisions, third-party payers, and not-for-profit producers. NOTE: Students will receive credit only once for either ECON 3507 or ECON 3597.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902)

ECON 3598. Economics Writing Seminar. 3 Credit Hours.
This course fulfills the advanced writing requirement for economics majors in the College of Liberal Arts and the Fox School of Business and Management. Students are expected to demonstrate through a series of writing assignments that they can use the economic techniques learned in previous courses to analyze current economic policy issues.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 3501 or ECON 3701), (ECON 3502 or ECON 3702), and (ECON 3503 or ECON 3703)

ECON 3672. Owl Fund Seminar II. 3 Credit Hours.
This course is a continuation of ECON 3572 providing the in-depth training in applied business economics to support the William C. Dunkelberg Owl Fund as part of the economics team. Students in this course will focus on producing attribution analysis reports in support of the portfolio manager of the Owl Fund. Permission of instructor is required for admission.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in ECON 3572.

ECON 3682. Independent Study. 1 to 6 Credit Hour.
Directed reading and/or writing assignments under supervision of a faculty member.

Repeatability: This course may be repeated for additional credit.

ECON 3696. Behavioral Economics. 3 Credit Hours.
This upper-level course, provides a solid foundation for understanding the new field of Behavioral Economics. It takes rational choice theory as a point of departure and then presents the findings of Behavioral Economics, explaining how these findings either support or call for a revision to the rational expectations model. The course uses multidisciplinary findings from psychology, experimental economics, neuroscience and evolutionary psychology to enhance our understanding of how humans make economics decisions and how incentives influence those decisions. Not only CLA economic majors, but also other CLA and FSBM students should be interested in this course, as it deals with the basis of all human decision-making.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3697. The Economics of Sports. 3 Credit Hours.
This course introduces students to a variety of economic disciplines through the prism of professional and amateur sports. Students confront industrial organization and anti-trust issues involving sports leagues, public finance issues involving the relationship between cities and franchises, and labor issues involving reward systems, unions and discrimination. The course concludes with an analysis of collegiate sports and the NCAA. Students who have earned credit in ECON 3541 will not receive additional credits.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3698. Economic Inequality. 3 Credit Hours.
This course studies inequality from the economic perspective. Students learn about and discuss: moral evaluations of inequality in political philosophy; the measurement of economic inequality; the connection of inequality with economic growth; the connection of globalization with inequality both within and across countries; the analyses and policy proposals advanced recently; and finally, the proper role of state institutions and policies in addressing inequality.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902) and (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW)

ECON 3701. Intermediate Microeconomic Analysis with Calculus. 3 Credit Hours.
An intermediate treatment of microeconomic theory and applications that makes frequent use of calculus and other mathematical techniques. Topics include consumer behavior, production, costs, perfect competition, imperfect competition, factor markets, public goods, and market failure. NOTE: This theory course is designed for students with strong analytic skills who have taken a minimum of Economics 1102 and Math 1041. Students who have received credit for ECON 3501 may not earn additional credit by taking this course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902) and (MATH 1041, MATH 1941, ECON 3504, or 'Y' in MATW)

ECON 3702. Intermediate Macroeconomic Analysis with Calculus. 3 Credit Hours.
An intermediate treatment of macroeconomic theory and applications that makes frequent use of calculus and other mathematical techniques. NOTE: This theory course is designed for students with strong analytic skills who have taken a minimum of Economics 1101/1901, Economics 3501/3701, and Math 1041/1941 or Economics 3504. Students who have earned credit for ECON 3502 may not register for this course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101 or ECON 1901), (ECON 3501 or ECON 3701), and (MATH 1041, MATH 1941, ECON 3504, or 'Y' in MATW)

ECON 3703. Econometric Theory. 3 Credit Hours.
An introduction to econometric theory. This course covers regression analysis, hypothesis testing, panel data, limited dependent variable models, instrumental variables, causal effects, and derives the properties of each of these estimators in substantial detail. The course also covers an introduction to statistical programming. This course is relatively math-intensive; it is designed for students who have at least taken Statistics 2103.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1102 or ECON 1902) and (STAT 2103, STAT 2903, or MATH 3031)

ECON 3900. Honors Topics in Economics. 3 Credit Hours.
Treatment of a particular topic in economics at the Honors level. NOTE: Topic varies from semester to semester. Honors courses usually require extra reading and a paper.

Course Attributes: HO

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 3999. Honors Thesis I. 1 to 6 Credit Hour.
Students work in an independent study situation to develop an original research project. Permission of the Department Chairperson required for registration.

Course Attributes: HO

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101, ECON 1901, MATH 1042, MATH 1942, MATH 1951, any MATH course numbered 2043 to 3080 (may be taken concurrently), or 'Y' in MATW) and (ECON 1102 or ECON 1902)

ECON 4021. Economics of Risk, Uncertainty, and Information. 3 Credit Hours.
This course provides an introduction to the issues of risk, uncertainty and information in economics. Students are introduced to the standard model of decision making under uncertainty, the expected utility model. The model is applied to theories of decision-making in financial and insurance markets and the design of contracts.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 3501 or ECON 3701) and (MATH 1041, MATH 1941, ECON 3504, or 'Y' in MATW)

ECON 4071. Monetary Theory and Policy. 3 Credit Hours.
This course discusses advanced topics in Monetary Economics and Banking. We will first cover an essential list of theories and techniques in monetary economics. We will then explore topics such as the choice of monetary policy rules versus discretion, the liquidity effect of open market operations and the role of the credit channel of monetary policy. All these theories and techniques emphasize the interactions between macroeconomic phenomena and individuals' decisions. Students who have earned credit in ECON 3505 will not earn additional credit for this course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 3501 and ECON 3571)

ECON 4999. Honors Thesis II. 1 to 6 Credit Hour.
Students continue working on the original original research project developed in ECON 3999. Permission of the Department Chairperson required for registration.

Course Attributes: HO

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C- in (ECON 1101 or ECON 1901) and (ECON 1102 or ECON 1902)

ECON 5001. Managerial Economics. 3 Credit Hours.
This course examines the applications of economic theory to problems confronting managers, including pricing under different market structures, cost and technology, strategic decision making, theory of demand, and the economics of less than perfect information.

Repeatability: This course may not be repeated for additional credits.

ECON 5011. Quantitative Methods in Economics. 3 Credit Hours.
This course provides students with the mathematical and statistical tools they will need to succeed in the M.A. in Business Economics. The course provides a hands-on introduction to the calculus of one and several variables and shows how calculus helps answer economic questions. It then introduces students to basic tools of statistical analysis in economics and the use of the R statistical package. It pays particular attention to hypothesis testing and basic regression techniques.

Repeatability: This course may not be repeated for additional credits.

ECON 5102. Economic Decisions and Public Policy. 3 Credit Hours.
The purpose of this course is to give Master of Public Policy students a working understanding of basic economic theory and how it applies to public policy analysis and decision making.

Repeatability: This course may not be repeated for additional credits.

ECON 5112. Public Finance. 3 Credit Hours.
This course covers theory and evidence on the economics of the public sector. Topics include public goods, externalities, optimal tax theory, and the effect of taxation on economic decision making.

Repeatability: This course may not be repeated for additional credits.

ECON 5113. Data Analytics for Economists. 3 Credit Hours.
This course builds upon basic econometric theory by emphasizing computational skills, especially the use of programs such as R, to manipulate and analyze real-world data sets. The course pays particular attention to the use of large data sets and imperfect data sets that require "cleaning." In addition to data analysis, the course emphasizes data visualization techniques and machine learning to illustrate and investigate economic problems. Students should have previous course in econometrics prior to enrolling in this class.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5011.

ECON 5182. Independent Study. 1 to 6 Credit Hour.
Supervised individual reading and research projects for master's and Ph.D. students. Depending on the type of project, work experience or curricular practical training may be required. No more than six semester hours of independent study may be counted toward degree requirements.

Repeatability: This course may be repeated for additional credit.

ECON 5190. Special Topics in Economics. 3 Credit Hours.
A one-semester course on a topic in a particular field of economics.

Repeatability: This course may be repeated for additional credit.

ECON 5201. Microeconomic Theory. 3 Credit Hours.
This course provides a mathematical view of microeconomic theory and applications. The analysis makes frequent use of calculus and other mathematical tools. Topics include consumer behavior, production, costs, perfect competition, imperfect competition, factor markets, public goods, and market failure.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5011.

ECON 5202. Macroeconomic Theory with Calculus. 3 Credit Hours.
This course provides a mathematical view of macroeconomic theory and applications. The analysis makes frequent use of calculus and other mathematical tools. Topics include consumer behavior, production, costs, perfect competition, imperfect competition, factor markets, public goods, and market failure.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5011.

ECON 5203. Introduction to Econometrics. 3 Credit Hours.
An introduction to econometric theory. This course covers regression analysis, hypothesis testing, panel data, limited dependent variable models, instrumental variables, causal effects, and derives the properties of each of these estimators in substantial detail. This course is designed for students who enter the M.A. in Business Economics who have not taken an undergraduate course in econometrics.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5011.

ECON 5501. Survey of Internatl Econ. 3 Credit Hours.
Repeatability: This course may not be repeated for additional credits.

ECON 5538. Economic Operations and Strategy. 3 Credit Hours.
This course builds on Economics 5201 by examining firm behavior and strategy in detail. Students study the actions of firms in perfectly competitive and imperfectly competitive settings. It pays particular attention to strategic behavior both internally, such as through the design of incentive mechanisms and externally, such as the response the threat of entry by competing firms. This course is required for students who plan to take the exam to become a Certified Business Economist.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5201.

ECON 5545. Economics of Labor Markets. 3 Credit Hours.
This course applies economic theory to the analysis of labor markets. The course covers a variety of topics, including labor supply and labor demand, human capital, the impact of different compensation mechanisms, and macroeconomic labor policy. The course makes ample use of current econometric techniques.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5201.

ECON 5551. Urban Economics. 3 Credit Hours.
This course uses economic theory and econometric techniques to study cities and regions and their relationships with each other. The course will shed light on questions like: Why are buildings usually tallest at the city center? Why are most jewelry stores located at the vicinity of 9th and Sansom, rather than spread across the city like grocery stores or movie theaters? Why are some cities very dense while others are spread out?

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5201.

ECON 5557. Health Economics. 3 Credit Hours.
This course uses economic theory and econometric techniques to analyze both the marketplace for health care and the implications of health policy. It also analyzes the socioeconomic implications of current health crises.

Course Attributes: SI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5201.

ECON 5801. The Economic Environment. 3 Credit Hours.
The student's proficiency and confidence in solving real-world business problems increase as a deeper understanding of micro- and macroeconomic issues is developed. This course examines foundations of the economic behavior of enterprises and consumers in different market environments, such as open market, monopoly, and oligopoly. Also analyzed is the impact of government fiscal, monetary, and trade policies on business decisions and on economic measures such as GNP, employment, interest rates, and exchange rates.

Repeatability: This course may not be repeated for additional credits.

ECON 5901. Masters Writing Seminar. 3 Credit Hours.
This course provides a summative experience in the Business Economics MA. Students demonstrate their mastery of the material they have learned in the program by performing original economic analysis of a current business or public policy problem. They also formally present their findings to the class and faculty.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C+ in ECON 5201, ECON 5202, and ECON 5113.

ECON 8001. Microeconomic Analysis. 3 Credit Hours.
Microeconomic theory for graduate students with little preparation in economics. This course offers detailed analysis of the behavior of households and firms in a variety of market settings.

Repeatability: This course may not be repeated for additional credits.

ECON 8002. Macroeconomic Analysis. 3 Credit Hours.
Macroeconomic theory for graduate students with little preparation in economics. This course is a survey of theories and evidence bearing on growth and cycles in output, employment, interest rates, and prices. The course includes sector details and considers the scope for control of cycles.

Repeatability: This course may not be repeated for additional credits.

ECON 8003. Mathematics for Economics I. 3 Credit Hours.
An overview of elementary calculus, linear algebra, and the theory of Lagrange multipliers for graduate students in economics and related fields.

Repeatability: This course may not be repeated for additional credits.

ECON 8005. Microeconomic Theory I. 3 Credit Hours.
This course covers basic price theory concepts such as demand analysis, the theory of the firm, and market equilibrium. It also covers basic theories of wages, rent, interest, and profits.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8001 and ECON 8003)

ECON 8007. Macroeconomic Theory I. 3 Credit Hours.
This course covers modern theories of economic growth and economic fluctuations. The main modeling tool is dynamic optimization with and without uncertainty.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8002, ECON 8003, and ECON 8001)

ECON 8009. Econometrics I. 3 Credit Hours.
This course is the first in a two-semester sequence. The materials begin with the classical linear regression model, including hypothesis testing. Such traditional topics as multicollinearity, heteroscedasticity, and autocorrelation are included. Problems of pooled data and simultaneous equations are also considered.

Repeatability: This course may not be repeated for additional credits.

ECON 8104. Labor Economics. 3 Credit Hours.
This course provides a theoretical framework for analyzing the operation of the labor market. The role of the labor market in the determination of employment, wages, prices, and production is central to this analysis. Labor supply, labor demand, human capital, labor unions, migration, and discrimination are among the topics discussed. Particular attention is paid to the role of public policy and to the design of theoretical and empirical models.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 5001.

ECON 8105. Regulations and Antitrust Policy. 3 Credit Hours.
The focus is on analysis of the impact of regulatory processes, including antitrust, upon industry. Special emphasis is given to public policy toward monopoly, resource utilization, and pricing processes.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 5001.

ECON 8106. Microeconomic Theory II. 3 Credit Hours.
Topics covered include general equilibrium analysis, game theory, introduction to public choice and welfare economics, and imperfect information analysis.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8005 and ECON 9101)

ECON 8108. Macroeconomic Theory II. 3 Credit Hours.
This course presents advanced topics in macroeconomics focusing on models with heterogeneous agents and market incompleteness.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8007, ECON 8009, and ECON 9101)

ECON 8109. Theory of Economic Development. 3 Credit Hours.
The major part is an introduction to applied theory of economic growth. The roles of human capital, investment, and natural resources are analyzed. Issues of sectoral development, policies of the public sector, finance, and international trade are discussed. Practical projections of economic growth and ease studies are stressed.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8009 and ECON 8007)

ECON 8114. Advanced Labor Economics. 3 Credit Hours.
This course examines the microeonomic foundations of macroeconomic phenomena in the labor market. Questions surrounding the nature of employment and its causes are explored. This course includes economic models of unions, contracting and agency models, efficiency wages, insider/outsider models, implicit contracts, and job searches. Specific articles in these areas form the basis of the material covered. Particular attention is paid to the mathematics behind many of the theoretical models covered in the course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8005, ECON 8009, and ECON 8104)

ECON 8115. Theory of Industrial Organizations. 3 Credit Hours.
The course offers a microeconomic analysis of the relationship between the structure of industry markets and the conduct and performance of business enterprise. Emphasis is on the modem theory of oligopoly, including dynamic pricing, contestable markets, and game theory. Specific dimensions of firm conduct include pricing, product differentiation, mergers, and research and development.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 8005.

ECON 8116. Mathematical Economics. 3 Credit Hours.
This course covers mathematical techniques and theorems of current importance in economic theory, with applications. Topics include game theory, social choice, general equilibrium analysis, and dynamic economics. The course concentrates on one of these topics, as warranted by developments in contemporary economic theory.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8005, ECON 8007, and ECON 9101)

ECON 8119. Econometrics II. 3 Credit Hours.
This is the second in a two-semester sequence of courses. The topics include nonlinear regression, the analysis of economic time series, and models with discrete or limited dependent variables.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 8009.

ECON 8121. Development of Less Developed Economies. 3 Credit Hours.
Examination of development efforts of less developed economies is undertaken. Selected domestic and international issues, policies, institutions, and reform are targeted.

Repeatability: This course may not be repeated for additional credits.

ECON 8122. Economics of the Public Sector. 3 Credit Hours.
Analysis of the economics of the public sector is covered. Topics include theories of public goods and optimal taxation, revenues, public expenditures, and incidence problems.

Repeatability: This course may not be repeated for additional credits.

ECON 8123. Economics of Sports. 3 Credit Hours.
This course covers the application to professional and amateur sports of theory of industrial organization; anti-trust issues; public finance involving the relationship between cities and franchises; and labor issues of reward systems, unions, and discrimination.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8009 and ECON 8114)

ECON 8124. International Trade: Theory and Policy. 3 Credit Hours.
This course offers an intensive study of pure theory of international trade, welfare impacts of international trade, the theory and practice of commercial policy, and international factor movements. Special topics include the transfer problem; trade under uncertainty; and the relations between trade, growth, and development.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in (ECON 8009, ECON 8106, and ECON 9101)

ECON 8125. Theory of Public Finance. 3 Credit Hours.
Repeatability: This course may not be repeated for additional credits.

ECON 8129. Time Series Econometrics. 3 Credit Hours.
This course is designed to teach students advanced econometric techniques necessary to conduct original empirical research in macroeconomics. The course focuses on techniques appropriate for the analysis of time-series data. Students will learn the theoretical underpinnings of such topics as stationarity, ARMA processes, and vector autoregression (VAR) models and how to apply this theory to economic data.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 8009 and ECON 8119.

ECON 8134. Intern Monetary Econ. 3 Credit Hours.
Repeatability: This course may not be repeated for additional credits.

ECON 8139. Panel Data Econometrics. 3 Credit Hours.
This course is designed to teach students advanced econometric techniques necessary to conduct original empirical research using micro-level data. The course focuses on techniques appropriate for the analysis of cross-section and panel data. Students will learn the theoretical underpinnings of such topics as instrumental variables, selection bias, and regression discontinuity, and quantile regression. We will pay particular attention to how to apply these techniques to economic data.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 8009 and ECON 8119.

ECON 8149. Computational Methods in Economics. 3 Credit Hours.
This course is designed to teach you a broad set of methods commonly used in economics research. Because of advances in computing power and the availability of large data sets, knowledge of numerical methods is a required element of your toolkit as an economist, irrespective of your area of research. At the end of the course you should be able to solve otherwise intractable problems in economics using the methods taught in this course.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C in ECON 8005 and ECON 8119.

ECON 8159. Econometric Estimation of Structural Models. 3 Credit Hours.
Students estimate econometric models, combining economic theory and econometric methods. The models apply to a variety of areas in economics, such as labor economics, IO, financial economics, and macroeconomics. By the end of the semester, students will be able to write down a dynamic economic model and estimate it using such methods as maximum likelihood and simulation method of moments.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of C in ECON 8005 and ECON 8119.

ECON 8190. Special Topics. 3 Credit Hours.
Repeatability: This course may be repeated for additional credit.

ECON 8204. Health Economics. 3 Credit Hours.
This course is designed to teach students advanced econometric techniques necessary to conduct original empirical research using micro-level data. The course focuses on techniques appropriate for the analysis of cross-section and panel data. Students will learn the theoretical underpinnings of such topics as instrumental variables, selection bias, and regression discontinuity, and quantile regression. We will pay particular attention to how to apply these techniques to economic data.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 8009 and ECON 8119.

ECON 9001. Foundations in Managerial Economics. 3 Credit Hours.
Repeatability: This course may not be repeated for additional credits.

ECON 9101. Mathematics for Economists II. 3 Credit Hours.
Mathematical techniques and theorems are presented and used in economic applications. Proofs are presented in formal mathematical language to introduce the students to the vernacular of current economics research papers. Topics covered include advanced topics in linear algebra; the implicit function theorem in multivariate calculus and its application to comparative statics; the Karush-Kuhn-Tucker theorem and applications to linear and nonlinear optimization theory; and differential and difference equations with elements of stability analysis.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B- in ECON 8003.

ECON 9183. Directed Study. 1 to 6 Credit Hour.
This course is designed for doctoral students who need specialization in topics related to their dissertation work.

Repeatability: This course may be repeated for additional credit.

ECON 9994. Field Examination/Dissertation Proposal Research. 1 to 6 Credit Hour.
This course is designed for students who have finished required coursework and are preparing a master's thesis or for preliminary and qualifying examinations.

Repeatability: This course may be repeated for additional credit.

ECON 9996. Master of Arts Thesis. 1 to 6 Credit Hour.
Repeatability: This course may be repeated for additional credit.

ECON 9998. Dissertation Proposal Research. 1 to 6 Credit Hour.
This course is designed for students who have passed the theory preliminary and qualifying examinations but do not have an accepted proposal. The course may be taken for up to 3 semester hours.

Repeatability: This course may be repeated for additional credit.

ECON 9999. Doctoral Thesis Research. 1 to 6 Credit Hour.
This course is designed for students who have an accepted proposal and are in the research/writing stage of the thesis. Students living in the Philadelphia metropolitan area are required to attend the seminar and fulfill its requirements. Those living outside the area are required to fulfill its written requirements each semester and to make at least one presentation of their doctoral research in the seminar or elsewhere during the period they are working on their dissertation.

Repeatability: This course may be repeated for additional credit.