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 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 statistics; 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.