

# ECONOMICS

## Department of Economics

**Chairperson:** Jim Henderson

**Graduate Program Director:** Finley Edwards

### Description of Degree Programs

The Department of Economics offers the Master of Science in Economics. This degree program prepares students for doctoral training in economics and related disciplines and for employment in the private and public sectors in the U.S. and abroad. The program includes core economics and field courses, modern statistical techniques, and tools of data science. Students can choose electives to follow a data science track, a financial economics track or an international/development economics track. Applicants do not need an undergraduate degree in economics to be admitted, although evidence of strong analytical skills is required.

### Admission Guidelines

Applicants must hold a bachelor's degree from an accredited college or university unless they are current Baylor undergraduates applying for the Joint BBA/MS program. Applicants are admitted on the basis of undergraduate record, GRE or GMAT score, and letters of recommendation. International students are also required to take either the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or Duolingo exam unless the applicant has a degree conferred by a U.S. accredited higher education institution. In addition, before admission, applicants must have taken the following undergraduate economics courses, or their equivalents: ECO 3306 Intermediate Microeconomic Analysis and ECO 3307 Intermediate Macroeconomic Analysis (i.e., intermediate microeconomics and intermediate macroeconomics), or fifteen hours of economics. Applicants are also strongly advised to complete undergraduate courses in calculus and statistics before the course of study begins. Additional admissions requirements can be found under the Business School Admissions.

- Economics, M.S. (<https://catalog.baylor.edu/graduate-school/curriculum-departments-institutes-instruction/hankamer-school-business/economics/economics-ms/>)
- Accelerated Bachelor of Business Administration/Master of Science in Economics (<https://catalog.baylor.edu/graduate-school/curriculum-departments-institutes-instruction/hankamer-school-business/economics/joint-bachelor-business-administration-master-science-economics/>)
- Economics Minor (<https://catalog.baylor.edu/graduate-school/curriculum-departments-institutes-instruction/hankamer-school-business/economics/economics-minor/>)
- Health Research and Policy, Ph.D. (<https://catalog.baylor.edu/graduate-school/curriculum-departments-institutes-instruction/hankamer-school-business/economics/health-research-policy-phd/>)
- Business Administration Environmental Sustainability, MBA (<https://catalog.baylor.edu/graduate-school/curriculum-departments-institutes-instruction/hankamer-school-business/economics/aud-environmental-sustainability/>)

## Economics (ECO)

### ECO 4312 Business Cycles and Forecasting (3)

Pre-requisite(s): A minimum grade of C in ECO 1380 or a minimum grade of C in ECO 2306 and 2307; BBA students must be admitted to the Business School in order to take this course

Examines basic causes of fluctuation in business activity. Topics include an examination of exogenous and endogenous influences on Gross National Product and other measures of economic activity, and the relationship between cycles in Gross National Product and cycles in particular industries and companies. The course emphasizes methods and techniques currently in use by business forecasters.

### ECO 4321 Energy Economics (3)

Cross-listed as AVS 4321

Analysis of energy markets, with a focus on static and dynamic efficiency. Oil, natural gas, coal, nuclear, and renewables (including wind, solar, hydro, geothermal, and biofuels). Regulation and deregulation in electricity and natural gas markets. Energy derivatives. Policy issues related to market externalities, including pollution and climate change.

### ECO 4323 The Environment and Economic Analysis (3)

Cross-listed as AVS 4323, ENV 4323

See ENV 4323 for course information.

### ECO 4345 Mathematical Analysis in Economics (3)

Pre-requisite(s): A minimum grade of C in ECO 3306

Designed to acquaint the student with rudimentary mathematical techniques and their application to economic analysis.

### ECO 5001 Research Seminar (0)

Pre-requisite(s): Graduate standing

Presentation and discussion of current research in economics. Course will be graded pass/fail.

### ECO 5002 Research Seminar (0)

Pre-requisite(s): Graduate standing

Presentation and discussion of current research in economics. Course will be graded pass/fail.

### ECO 5110 Key Global Economic and Strategic Issues (1)

Pre-requisite(s): Admission to Executive MBA program

This course will enable the participant to see how economic analysis is applied to key global issues that affect management decisions at home and abroad. Questions related to globalization and interdependence among nations will be addressed.

### ECO 5115 Pricing and Economic Analysis (1)

Pre-requisite(s): Admission to MBA program

Use of economic analysis by managers to help firms acquire and sustain competitive advantage.

### ECO 5116 Economics of Strategic Interaction (1)

Pre-requisite(s): ECO 5115

Use of economic analysis to aid managers in obtaining favorable outcomes in situations involving strategic interaction between and within firms.

### ECO 5117 Managerial Macroeconomics (1)

Pre-requisite(s): ECO 5116

Use of macroeconomic analysis by managers in tactical and strategic planning with reference to long-term macroeconomic trends and short-term business cycle fluctuations; sources of disaggregated data; forecasting.

**ECO 5199 Non-Thesis Degree Completion (1)**

To fulfill requirements for non-thesis master's students who need to complete final degree requirements other than coursework during their last semester. This may include such things as a comprehensive examination, oral examination, or foreign language requirement. Students are required to be registered during the semester they graduate.

**ECO 5305 Business Foundations - Economics (3)**

This course is required for MBA and MSIS students who do not have an undergraduate degree in business from an AACSB-accredited institution. It provides students with a foundation in economics which is expected of all business graduate students, and helps them to understand the market environment in which businesses operate.

**ECO 5310 Macroeconomic Analysis in the Global Economy (3)**

Pre-requisite(s): A minimum grade of C in ECO 5315

This course analyzes national and global economic issues from a macroeconomic perspective. Topics include economic aggregates, interest rates, the balance of payments and exchange rates, aggregate production, economic growth, unemployment, consumption, investment, macroeconomic dynamics, monetary policy, and fiscal policy.

**ECO 5314 Seminar in Behavioral and Experimental Economics (3)**

Application of the scientific method to economics using laboratory experimentation to test economic theories about individual and group behavior. Exploration of behavioral concepts to expand economic modeling beyond pure rational choice models.

**ECO 5315 Microeconomic Theory and Business Decisions (3)**

Pre-requisite(s): Six semester hours of economics

A seminar designed to cover aspects of micro theory that are relevant for decision making within the firm. Emphasis is placed on the decision-making process. Numerous problems, cases, and examples are used to illustrate the theory.

**ECO 5317 Contemporary Government and Business Relations (3)**

Pre-requisite(s): Six semester hours of economics

An examination of the many ways in which government and business interact. Topics covered include the historical development of government regulations of business; the current state of antitrust enforcement; issues involving multinational corporations; the basis for regulated markets and forces favoring deregulation; the impact of consumer protection policies and affirmative action policies on business; and the outlook for government and business relations in the future.

**ECO 5318 Game Theory (3)**

Pre-requisite(s): Admission to graduate program in Economics or consent of instructor

This course provides a technical treatment of the theory of games and strategic behavior with an emphasis on applications in economics and business. This framework helps us to understand the nature of competition and cooperation. We also study contractual arrangements that affect incentives under different information constraints.

**ECO 5320 The Economics of Government (3)**

Pre-requisite(s): Six semester hours of economics

Economic rationale and effect of various taxes, user pricing, and the role of government in the allocation of resources, stabilization of the economy, and redistribution of wealth.

**ECO 5321 Energy Economics (3)**

Cross-listed as ENV 5321

Pre-requisite(s): Six semester hours of economics

Origins of the energy crisis, the effect of oil prices on inflation and the international monetary system, the origins and nature of OPEC, the economic feasibility of alternative energy sources, U.S. energy policy alternatives, and other current issues in the field of Energy Economics. A portion of the course is devoted to examining the energy industry in Texas and the Southwest.

**ECO 5325 Seminar in Regional Economics (3)**

Pre-requisite(s): Nine hours of economics or consent of instructor

Adaptation of economic theory for use in regional economic analysis. Selected problems: urban renewal, transportation, plant location, individual location decisions, land use, regional economic growth, and structure.

**ECO 5327 E-Commerce Economics (3)**

Pre-requisite(s): Six hours of economics or consent of instructor

This course applies tools of economic analysis to evaluate the evolving role of electronic commerce in the United States and world economies. The course addresses theories of firm conduct and performance in the electronic marketplace; the role of information and e-commerce intermediaries; the economics of Internet advertising; intellectual property rights of digital products; national and international public-policy issues of e-commerce; the financial and monetary implications of electronic trading; and the broader implications of e-commerce for U.S. and world economic activity.

**ECO 5330 Problem Areas in International Economics (3)**

Pre-requisite(s): ECO 3306, ECO 5415, or the equivalent, or consent of department chair

World economy with particular emphasis upon emerging problems relating to the international monetary system, the trend toward economic regionalism, the growth of the less developed countries, and economic relations between private enterprise economies and state trading enterprises. Basic theories of international economics are developed as a framework for analysis of policy issues.

**ECO 5333 Foreign Exchange Markets and International Monetary Institutions (3)**

Cross-listed as FIN 5333

Foreign exchange markets, emphasizing theoretical and empirical issues and their relation to the business environments. Topics include exchange rate regimes, efficiency, forecast measurement and management of foreign exchange risk forward and futures markets, options, swaps, and multi-currency bonds.

**ECO 5334 Economic Development (3)**

Pre-requisite(s): Six semester hours of economics

Major issues involved in the process of development such as mass poverty, population growth, agricultural transformation, and trade.

**ECO 5338 Seminar in World Economic Systems (3)**

Pre-requisite(s): ECO 2305, 2306, 3305, or equivalent course work

Economic institutions in a number of capitalist and socialist nations, and their relative success or failure presented in the context of country studies. Topics include the problems involved in making international statistical comparisons, the importance of the rise in the U.S. service sector, the operation of private and nationalized industries in Western Europe, lifetime employment in Japan, central planning in the Soviet Union, socialist economic reforms, international trade among and between Western and Eastern nations, and the convergence hypothesis.

**ECO 5340 Economic Tools for Management Decision Making (3)**

Pre-requisite(s): Admission to graduate business program  
 Upon completion of this course, students will be able to apply a wide range of ideas, concepts, and results from the economics discipline to be more effective managers. Topics may include incentives, market structures and pricing, price discrimination, game theory, macroeconomic theory, analysis and application, and exchange rates and international trade.

**ECO 5343 History of Economic Thought (3)**

Pre-requisite(s): Nine semester hours of economics or consent of instructor

Historical and analytical study of economic thought, beginning with Mercantilism and including the following schools of thought: Physiocratic, Classical, Marxian, Austrian, Neoclassical, Institutional, Keynesian, and Post-Keynesian.

**ECO 5347 Econometric Theory and Methods (3)**

Pre-requisite(s): Graduate standing

Empirical estimation of economic relationships; behavioral (consumers), technical (firms), and institutional. It teaches proper use of linear estimation techniques along with problem identification and solution.

**ECO 5349 Causal Inference and Research Design (3)**

Pre-requisite(s): Minimum grade of C in ECO 4347 or department approval

Introduction to modern tools for determining the existence of causal relationships among variables. Emphasizes both the design of the research process and the use of advanced econometric techniques.

**ECO 5350 Health Economics (3)**

Cross-listed as HPA 5350

Pre-requisite(s): ECO 5115 or 5315; or consent of instructor

Application of economic principles to health care issues; examining economic efficiency in a variety of circumstances including the production and distribution of health services, health insurance, governmental programs, health care personnel and hospitals. Analysis of public in health and medical care from an economic perspective.

**ECO 5351 Data Science I (3)**

Pre-requisite(s): A minimum grade of B in ECO 4347 or the equivalent, or approval of the department

Best practices in data collection, cleaning, manipulation, and data and code management. Methods and principles of data exploration and visualization. Unsupervised statistical learning techniques, supervised statistical learning techniques, and false discovery principles.

**ECO 5352 Data Science II (3)**

Pre-requisite(s): A minimum grade of B in ECO 4347 and ECO 5351

Assessing model accuracy, resampling methods, model selection, regularization, and dimension reduction. Machine learning techniques and their applications in economic research.

**ECO 5360 Seminar in Corporate Finance (3)**

Cross-listed as FIN 5360

See FIN 5360 for course information.

**ECO 5362 Seminar in Corporate Short-term Financial Management (3)**

Cross-listed as FIN 5362

See FIN 5362 for course information.

**ECO 5365 Investment Management (3)**

Cross-listed as FIN 5365

See FIN 5365 for course information.

**ECO 5368 Seminar in Financial Markets (3)**

Cross-listed as FIN 5368

See FIN 5368 for course information.

**ECO 5370 Management of Financial Institutions (3)**

Cross-listed as FIN 5370

See FIN 5370 for course information.

**ECO 5415 Economics for Managers (4)**

This course helps students understand and apply a wide range of economics-related theories, concepts, and facts to managerial decision-making. Four areas of economics are considered: (i) managerial economics, with a focus on how to determine what prices a firm should charge for its products; (ii) game theory, with a focus on how issues of strategic interaction arise in business settings and what kinds of decisions in various circumstances are likely to lead to the most favorable outcomes; (iii) macroeconomics, with a focus on applying theories and information about the national economic environment in which firms operate to enhance managerial effectiveness; and (iv) international economics.

**ECO 5V98 Special Studies in Economics (1-6)**

Pre-requisite(s): Nine semester hours of economics and consent of instructor

This course may be taken for one to six semester hours of credit.

**ECO 5V99 Thesis (1-6)**

hrs.