

# ECONOMICS

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## **ECO 5114 Microeconomic Analysis 4 Credits**

**Grading Scheme:** Letter Grade

Develops the foundational theoretical models employed in understanding market interactions. Examines consumer choice, profit maximization by suppliers, market equilibrium in settings that vary with respect to their competitiveness, economic efficiency, and policy interventions in markets.

## **ECO 5207 Macroeconomic Analysis 4 Credits**

**Grading Scheme:** Letter Grade

Develops foundational tools of modern macroeconomic analysis. Examines consumption-labor decisions and consumption-savings decisions by households, profit maximization by firms, and the impacts of fiscal and monetary policy on the aggregate economy. Identifies optimal fiscal and monetary policies. Presents prominent theories of long-run economic growth.

## **ECO 5216 Monetary Economics 4 Credits**

**Grading Scheme:** Letter Grade

Develops foundational theoretical models employed by modern monetary economics. Examines individual and aggregate money demands and analyzes their effect on interest rate determination. Examines liquidity effect of monetary injections on interest rates and currency exchange rates.

## **ECO 5426 Econometric Analysis 1 4 Credits**

**Grading Scheme:** Letter Grade

Introduces concepts and methods employed in empirical economic analysis. Examines ordinary least squares, instrumental variables, maximum likelihood estimation, and model specification. Covers topics needed to plan and implement empirical projects, and understand potential problems with the empirical analyses of others.

## **ECO 5427 Econometric Analysis 2 4 Credits**

**Grading Scheme:** Letter Grade

Introduces to advanced concepts and methods employed in empirical economic analysis. Examines logit, probit, tobit, and categorical dependent variable models. Examines estimation of economic panel data. Covers topics needed to plan and implement empirical projects in the presence of limited dependent variables.

**Prerequisite:** ECO 5426

## **ECO 5435 Economic Data Analysis 4 Credits**

**Grading Scheme:** Letter Grade

Introduces coding for data manipulations and statistical analysis in Stata. Investigates construction and calculation of economic indicators. Identifies imperfections inherent to common indicators. Examines microdata and aggregate-level economic data using panel data and fixed-effects regression models.

## **ECO 5464 Game Theory and Industrial Organization 4 Credits**

**Grading Scheme:** Letter Grade

Introduces strategic behavior—what to do when your preferred action depends on others' choices of their own preferred actions—to the analysis of imperfectly competitive markets. Develops and examines Nash Equilibrium and numerous equilibrium refinements. Applies these solution refinements to important issues of imperfect competition.

## **ECO 5715 Open Economy Macroeconomics 2 Credits**

**Grading Scheme:** Letter Grade

International linkages arising from capital flows and exchange rates as well as comparison on macroeconomic policies and performance across countries. Effect of macroeconomic events on international business environment.

**Prerequisite:** ECP 5702. Designed primarily for M.B.A. students.

## **ECO 5745 Global Trade and Policy 3 Credits**

**Grading Scheme:** Letter Grade

Provides overview of theory, policy, and institutions that govern international flow of goods and services. Analyzes evolution of global trade, causes and effects of globalization, foreign outsourcing, effects of globalization on income distribution, international factor movements, strategic trade policy, multilateral and regional trade agreements, and global environmental issues.

## **ECO 6409 Game Theory Applied to Business Decisions 2 Credits**

**Grading Scheme:** Letter Grade

Business settings analyzed wherein a few decision makers profoundly affect one another's well being. Oligopoly competition and coordination, nonprice choices, entry deterrence, reputation formation, contract design, and management of work teams.

**Prerequisite:** ECP 5702 or equivalent. Designed primarily for MBA students.

## **ECO 6716 International Macroeconomics 3 Credits**

**Grading Scheme:** Letter Grade

Macroeconomic policies and their effects on the international business environment.

**Prerequisite:** ECP 5705. Designed primarily for M.B.A. students. Not designed for doctoral students in economics.

## **ECO 6906 Individual Work in Economics 1-4 Credits, Max 8 Credits**

**Grading Scheme:** Letter Grade

Individual Work in Economics

## **ECO 6910 Supervised Research 1-5 Credits, Max 5 Credits**

**Grading Scheme:** S/U

Supervised Research

## **ECO 6936 Special Topics 1-4 Credits, Max 16 Credits**

**Grading Scheme:** Letter Grade

Special Topics

## **ECO 6957 International Studies in Economics 1-4 Credits, Max 12 Credits**

**Grading Scheme:** S/U

International Studies in Economics

**Prerequisite:** admission to approved study abroad program and permission of department.

## **ECO 6971 Research for Master's Thesis 1-15 Credits**

**Grading Scheme:** S/U

Research for Master's Thesis

## **ECO 6977 Financial Economics Capstone 3 Credits**

**Grading Scheme:** Letter Grade

Introduces fundamentals of financial project management. Examines project financing for private and public projects. Covers numerous application-based topics including funds sourcing, legal frameworks and regulation, and credit risk. Includes capstone project in financial economics.

**Prerequisite:** Admission into the Master of Arts in Economics program.

**ECO 7113 Information Economics 1-2 Credits, Max 2 Credits****Grading Scheme:** Letter Grade

Analysis of information problems, remedies through contracting or adoption of different procedures and organization when complete contracting is infeasible.

**Prerequisite:** ECO 7115 and ECO 7408. ;**Corequisite:** ECO 7404.**ECO 7115 Microeconomic Theory 1 3 Credits****Grading Scheme:** Letter Grade

Analysis of optimization applied to consumer and product theory including comparative statistics and duality.

**ECO 7116 Microeconomic Theory 2 3 Credits****Grading Scheme:** Letter Grade

Introduces game theory, public goods and externalities, and adverse selection and moral hazard. Applies pure-strategy and mixed-strategy Nash Equilibria solution concepts to solve simultaneous-play games. Develops Bayesian Nash Equilibria solution concepts for dynamic games. Solves monopolists' profit-maximization problem. Examines other inefficiencies stemming from public goods, externalities, and information asymmetries.

**Prerequisite:** ECO 7115. ECO 7115 is taught once per year.**ECO 7120 General Equilibrium and Welfare Economics 1-2 Credits, Max 2 Credits****Grading Scheme:** Letter Grade

Introduction to general equilibrium analysis, including existence of equilibrium, core convergence, and fundamental theorems of welfare economics.

**Prerequisite:** ECO 7115. ;**Corequisite:** ECO 7406.**ECO 7206 Macroeconomic Theory I 3 Credits****Grading Scheme:** Letter Grade

Coreq: ECO 7115, ECO 7408. Classical, Keynesian, and new classical aggregate income and employment analysis. Demand for money. Inflation and unemployment. Monetary policy and stabilization. Time series and rational expectations models.

**ECO 7207 Macroeconomic Theory II 3 Credits****Grading Scheme:** Letter Grade

Introduces foundational models of economic growth and macroeconomic fluctuations. Presents the Solow Growth Model, the Ramsey-Cass-Koopmans Growth Model, and the Diamond Growth Model. Develops the New Growth Theory by incorporating research and development activity and human capital investment. Examines short-run macroeconomic fluctuations using the traditional and new Keynesian models.

**Prerequisite:** ECO 7206.**ECO 7297 Applied Macroeconomics I 3 Credits****Grading Scheme:** Letter Grade

Prepares doctoral students to be researchers in Modern Macroeconomics. Constructs and solves Dynamic Stochastic General Equilibrium (DSGE) models. Uses real-world economic data to estimate and calibrate DSGE models using Bayesian methods. Identifies and measures the size of macroeconomic shocks on output, employment, prices, and other relevant macroeconomic variables.

**Prerequisite:** ECO 7206. (ECO 7206 is completed by all PhD students in Year 1 of the program. This course will be taken in the fall semester of the second year of the PhD program.)

**ECO 7298 Applied Macroeconomics II 3 Credits****Grading Scheme:** Letter Grade

Expands the set of analytical tools that students may use to answer important questions in macroeconomics. Focuses on models that capture interactions between heterogeneous agents, such as households or firms, and their implications for economic performance. Examines the role of market imperfections and financial frictions.

**Prerequisite:** ECO 7297.**ECO 7404 Game Theory for Economists 1-2 Credits, Max 2 Credits****Grading Scheme:** Letter Grade

Introduction to modern game theory as used in economics. Emphasis on use of techniques in simple applications.

**Prerequisite:** ECO 7115 and ECO 7408.**ECO 7408 Mathematical Methods and Applications to Economics 1-2 Credits, Max 2 Credits****Grading Scheme:** Letter Grade

Mathematical techniques used in graduate work in economics and finance. Linear algebra and differential equations, with emphasis on results used in economic theory and econometrics.

**ECO 7415 Statistical Methods in Economics 3 Credits****Grading Scheme:** Letter Grade

Coreq: ECO 7408. Introduction to fundamental statistical concepts: estimation, hypothesis testing, linear regression, and analysis of variance.

**ECO 7423 Econometric Methods I 3 Credits****Grading Scheme:** Letter Grade

Stochastic models. The general linear model and problems associated with its use in econometric research. Theory of the simultaneous equation approach, model construction, and estimation techniques.

**Prerequisite:** ECO 7424 or departmental approval.**ECO 7424 Econometric Models and Methods 3 Credits****Grading Scheme:** Letter Grade

Introduction to classical econometric theory, linear models, and estimation methods.

**Prerequisite:** ECO 7415.**ECO 7452 Best Empirical Practices in Economics 1-2 Credits****Grading Scheme:** Letter Grade

Analysis of empirical papers to develop skills for evaluating and conducting empirical testing of economic theory.

**ECO 7458 Econometric Methods II 3 Credits****Grading Scheme:** Letter Grade

Advanced econometric theory with applications to topics such as nonlinear estimation, limited dependent variable models, time-series analysis, and specification testing.

**Prerequisite:** ECO 7424 or AEB 7571.**ECO 7525 Welfare Economics and The Second Best 1-2 Credits****Grading Scheme:** Letter Grade

Introduction and overview of public sector economics. Basic welfare economics, optimal commodity and income taxation, and public goods and welfare.

**Prerequisite:** ECO 7115**ECO 7534 Empirical Public Economics I 1-2 Credits, Max 2 Credits****Grading Scheme:** Letter Grade

Taxation, expenditures, marketplace of local governments, federalism and sources of inefficiency in government, voter turnout.

**Prerequisite:** ECO 7424 and 7525.**ECO 7535 Empirical Public Economics II 1-2 Credits****Grading Scheme:** Letter Grade

Education, welfare policy, health policy, and environmental policy.

**ECO 7536 Theoretical Public Economics 1-2 Credits****Grading Scheme:** Letter Grade

The course is concerned primarily with public goods and their provision.

**Prerequisite:** ECO 7115.**ECO 7706 Theory of International Trade 3 Credits****Grading Scheme:** Letter Grade

Historical and economic background of foreign trade; theory of international trade; fundamentals of international exchange; international commercial policies and international trade; exchange fluctuations and their control; international monetary institutions.

**ECO 7707 International Economic Relations 3 Credits****Grading Scheme:** Letter Grade

International trade and income distribution, international technology diffusion, foreign direct investment and multinational enterprise, formation and reform of trade and investment policy.

**ECO 7925 Research Skills Workshop 3 Credits****Grading Scheme:** S/U

Transition from learning about work of others to doing research. Selecting area of research, surveying literature, narrowing to specific topic, formulating model, collecting data if appropriate, working through theoretical or empirical analysis, and writing first draft.

**Prerequisite:** passed written qualifying exams.**ECO 7938 Advanced Economics Seminar 1-4 Credits, Max 20 Credits****Grading Scheme:** Letter Grade

For advanced graduate students in economics. Student must have completed graduate core program and have preliminary dissertation topic.

**ECO 7979 Advanced Research 1-12 Credits****Grading Scheme:** S/U

Research for doctoral students before admission to candidacy. Designed for students with a master's degree in the field of study or for students who have been accepted for a doctoral program. Not appropriate for students who have been admitted to candidacy.

**ECO 7980 Research for Doctoral Dissertation 1-15 Credits****Grading Scheme:** S/U

Research for Doctoral Dissertation

**ECP 5702 Managerial Economics 2 Credits****Grading Scheme:** Letter Grade

Microeconomic forces that influence decisions made by firms. Cost concepts, pricing strategies, capital investment, human resource management, innovation, and the influence of the competitive environment of firms.

**Prerequisite:** Designed primarily for M.B.A. students.**ECP 5705 Economics of Business Decisions 3 Credits****Grading Scheme:** Letter Grade

Synthesis and application of microeconomic theory and related business administration principles to managerial decision making through a problem-solving orientation.

**Prerequisite:** Designed primarily for M.B.A. students.**ECP 6035 Cost-Benefit Analysis 4 Credits****Grading Scheme:** Letter Grade

Introduces leading economic methodologies for conducting cost-benefit analyses. Differentiates and describes importance of opportunity costs and accounting costs. Discusses and applies individual and social discount rates. Presents several practical applications of cost-benefit analysis.

**Prerequisite:** ECO 5114 (Microeconomic Analysis).**ECP 6455 Antitrust Economics 4 Credits****Grading Scheme:** Letter Grade

Introduces United States' law governing American competition policy and enforcement. Identifies and describes several potentially anticompetitive practices. Applies microeconomic theory to analyze potentially anticompetitive conduct and calculates welfare effects. Examines abuse of monopoly and monopsony power, cartels and collusion, vertical integration and restraints, and horizontal and vertical mergers.

**Prerequisite:** ECO 5114 (Microeconomic Analysis) and ECO 5464 (Game Theory and Industrial Organization).**ECP 6708 Cases in Competitive Strategy 2 Credits****Grading Scheme:** Letter Grade

Current and recent cases to illustrate practical principles using strategic analysis. Class discussions of cases comprise first part; student presentations comprise second part. Practical business lessons from applying strategic methodology.

**Prerequisite:** ECO 6409. Designed for MBA students.**ECP 7408 Empirical Industrial Organization 3 Credits, Max 3 Credits****Grading Scheme:** Letter Grade

Reviews numerical methods for optimization in MatLab. Presents current methods for demand estimation. Describes conventional approaches to characterizing demand for homogenous and differential products. Describes methods for appropriately treating static and dynamic settings. Examines methodological strengths and weaknesses of various demand estimation techniques.

**Prerequisite:** ECO 7424 required; ECO 7426 recommended or consent of instructor.**ECP 7409 Empirical Industrial Organization II 3 Credits****Grading Scheme:** Letter Grade

Reviews various econometric approaches to estimating firms' production functions. Identifies and describes strengths and weaknesses of those approaches. Examines incentives for market entry, exit, and deterrence. Characterizes relationships between price, welfare, and market structure. Examines methods for treating price discrimination.

**Prerequisite:** ECP 7408.**HSA 6436 Health Economics 3 Credits****Grading Scheme:** Letter Grade

Fundamental economic relations governing production, consumption, reimbursement, and financing of health services. Characteristics of markets for acute and long-term care services, insurance, and health care labor. Economic evaluation of technology.

**Prerequisite:** consent of instructor.