

# ECONOMICS (ECO)

## ECO 100 Economics of a Global Sustainable Society 3

Sustainable development, with a natural emphasis on non-Western nations; will consider issues around such topics as demographics, development theories, the environment, health and education, the role of institutions, etc.

**MAC:** MAC Global and Intercultural

## ECO 160 Exploring Economics through Popular Culture and Public Policy 3

Exploration of topics in popular culture and public policy using the lens of economics. Topics may include entertainment, sports, technology, and policy issues in fields such as health, education, and the environment. Economic concepts include supply and demand, opportunity cost, scarcity, and incentives.

**MAC:** MAC CritThink Soc and BehavSci

**Prerequisites:** Freshman standing.

## ECO 201 Principles of Microeconomics 3

Introduction to microeconomic principles and analysis. Topics include: the market economy, supply and demand, shortages and surpluses, competition and monopoly, international trade, and public policy issues.

**MAC:** MAC CritThink Soc and BehavSci

## ECO 202 Principles of Macroeconomics 3

Introduction to macroeconomic principles and analysis. Topics include the national income, the monetary system, inflation, business cycles, fiscal policy, the national debt, exchange rates, balance of payments, and economic growth.

**MAC:** MAC CritThink Soc and BehavSci

## ECO 250 Economic and Business Statistics I 3

Introduction to statistical methods with applications in economics and business. Topics include descriptive statistics, probability, statistical inference, correlation, and regression. Emphasis on problem solving with microcomputer applications.

**Prerequisites:** An acceptable score on the mathematics placement test or any one of the following: MAT 115, MAT 118, MAT 120, MAT 150, MAT 151, MAT 190, MAT 191, MAT 196, MAT 292, MAT 296.

## ECO 300 The International Economy 3

Examines the history, structure, and institutional foundations of the international trading system. Analyzes the impact of trade on economic growth, employment and living standards with a focus on contemporary issues.

**Prerequisites:** ECO 201 and ECO 202. or permission of instructor.

## ECO 300X Experimental Course 1-6

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## ECO 301 Intermediate Microeconomic Theory 3

Intermediate level analysis of consumer theory and theory of the firm. Other topics include market failure, savings and investment, risk and uncertainty, wage determination, and income distribution.

**Prerequisites:** ECO 201. Completion of one of the following: MAT 115, MAT 118, MAT 120, MAT 150, MAT 151, MAT 183, MAT 184, MAT 190, MAT 191, MAT 196, MAT 292, MAT 293, or MAT 296.

## ECO 302 Intermediate Macroeconomic Theory 3

Intermediate level analysis of national income and employment with attention to fiscal and monetary policy, theories of business fluctuations, and economic growth.

**Prerequisites:** ECO 202.

## ECO 312 Economics of Technology 3

Economic analysis of technological change. Topics include sources of productivity, inventive activity, entrepreneurship, innovation strategy, RD management, patenting, and technology assessment.

**Prerequisites:** ECO 201.

**Notes:** Students who have prior credit for ENT 312 may not take ECO 312 for credit.

## ECO 315 The Economics of Entrepreneurship 3

Study of entrepreneurship from history of economic thought perspective and application of such concepts to economic agents. Emphasis on economic thought, market activity, and economic growth.

**Prerequisites:** ECO 201.

**Notes:** Students who have prior credit for ENT 315 may not take ECO 315 for credit.

## ECO 319 Quantitative Analysis 3

Introduction to mathematical methods in economics. Includes applications of mathematics to consumer and production theory, equilibrium analysis, input-output models, and optimization.

**Prerequisites:** Minimum grade of B (3.0) in MAT 120 or minimum grade of C (2.0) in MAT 191 or MAT 196. ECO 201.

## ECO 323 Public Economics 3

The analysis of taxes and expenditures. Topics include: rationale for government (public goods, externalities), expenditure analysis (including income redistribution), tax analysis (including income, sales, and property taxes).

**Prerequisites:** ECO 301.

## ECO 327 Money and Economic Activity 3

Emphasis on legal, institutional, and economic forces which mutually interact to determine supply of money. Elementary monetary theory and monetary flows, institutions, policies, and problems analyzed. International as well as domestic monetary analysis.

**Prerequisites:** ECO 202.

## ECO 350 Economic and Business Statistics II 3

Continuation of ECO 250. Inference about population variance, inference about two populations, analysis of variance, bivariate regression, and multiple regression with empirical applications to business and economics using statistical software.

**Prerequisites:** Any one of the following: ECO 250, PSC 301, PSY 211, SOC 302, STA 271, STA 290, or STA 352.

## ECO 355 Econometrics 3

The application of statistical models and methods to economic data and models. Topics include linear regression, interpretation of results, hypothesis testing, and specification testing.

**Prerequisites:** ECO 350.

## ECO 360 International Monetary Economics 3

Analysis of balance of payments and international monetary systems. Monetary and fiscal policies under the gold standard, fixed exchange, and flexible exchange systems. Breakdown of the Bretton Woods system and the current exchange rate policies of central banks.

**Prerequisites:** ECO 302.

## ECO 362 History of Economic Thought 3

The history of economic thought and criticism since the eighteenth century. Major topics include classical economics, socialism, communism, marginalism, Keynesianism, corporatism, Austrian economics, monetarism, developmentalism, neoliberalism, and modern anti-market revolutions.

**Notes:** Same as HIS 362.

**ECO 364 Introduction to Data Methods 3**

Explore how to prepare data for analysis and learn practical skills (including inputting data, variable construction, and sample selection), how to find problems with data (such as missing data or outliers), how to describe data using figures and tables, and how to perform basic data analysis. Introduces Stata, analysis software.

**Prerequisites:** Any ONE of the following: ECO 250, ECO 350, PSC 301, PSY 211, SOC 302, STA 271, STA 290, STA 301, STA 352, or permission of instructor.

**ECO 367 Economic Growth and Development 3**

Investigation of the determinants of the long-run economic growth of nations. Application of economic concepts to problems of developing and lesser developed countries.

**Prerequisites:** ECO 302.

**ECO 370 Labor Economics 3**

Examination of wage and employment determination in U.S. labor markets. Topics include labor supply and labor demand theory, investments in education and training, job search and migration, unemployment, unions, racial and sex discrimination, income inequality, and public policy.

**Prerequisites:** ECO 301.

**ECO 380 Environmental and Natural Resource Economics 3**

Examination of environmental problems in market economies. Topics include the economic theory of pollution and its control, common-property resources, renewable and other resources, endangered species, population growth, and international problems.

**Prerequisites:** ECO 201.

**ECO 390 The Economics of Healthcare and Health Insurance 3**

This course explores problems with the American healthcare system including high rates of uninsurance and healthcare costs. We will investigate health inequities across groups and problems with our healthcare system revealed by the pandemic. We will focus on implications for public policy, including the Affordable Care Act (Obamacare).

**Prerequisites:** ECO 201.

**ECO 413 Directed Studies in Economics I 1-3**

Individual study of economic problems of special interest to the student. Regular conferences with instructor required.

**Prerequisites:** 21 s.h. of economics and permission of instructor.

**ECO 426 Internship: Experiential Learning in Economics 1-3**

Campus-monitored, supervised off-campus internships that involve the application of economic analysis and methods and develop professional skills. Minimum of fifty supervised internship hours per one credit hour earned.

**Prerequisites:** Minimum overall GPA of 2.50 and permission of instructor. ECON/ECOS major;

**Notes:** Grade: Pass/Not Pass (P/NP).

**ECO 493 Honors Work 3-6**

Honors Work.

**Prerequisites:** Permission of instructor. 3.30 GPA in the major, 12 s.h. in the major;

**Notes:** May be repeated for credit if the topic of study changes.

**ECO 498 Seminar in Economics 3**

Examination of market failure, public goods, economic efficiency, and income incidence, allocative effects, and public policy.

**Prerequisites:** ECO 301, ECO 302, and ECO 350 or STA 301.

**ECO 499 Problems in Economics 3**

Independent study, research, and discussion covering a topic or group of related topics of current interest in economic policy or economic theory. Topics covered vary from semester to semester.

**Prerequisites:** Permission of instructor.

**Notes:** May be repeated for credit with approval of department head.

**ECO 613 Directed Studies in Economics II 1-3**

Individual study of an advanced topic in economics. Regular conferences with the instructor are required.

**Prerequisites:** Permission of the Director of Graduate Study in Economics and the professor who will supervise the study.

**ECO 625 Data Methods in Economics 3**

Advanced techniques in data preparation. Topics include data formats, error checking, merging data, large data sets, and missing observations. Students work extensively with SAS.

**ECO 630 Introduction to Cost Effectiveness 3**

Methods used by health economists to evaluate health care technologies and programs. Learn how to critique and use health economic evaluations, common health economic evaluation tools and methods.

**ECO 631 Applied Policy Methods 3**

Provides applied foundation for policy study with emphasis on an economic efficiency perspective including history of policy analysis, market and government failure, and alternative methods for policy analysis.

**ECO 637 Empirical Health Economics 3**

Examines the market for health services and the production of health. Topics include the demand and supply for health care professionals, health insurance and financing, and regulation of medical markets.

**ECO 641 Microeconomics I 4**

Theory of consumer and firm behavior under certainty and uncertainty including exchange, production, income distribution, market structure and welfare economics.

**ECO 642 Microeconomics II 3**

Examination of market failures that can occur within competitive, decentralized market systems. Topics include market power, uncertainty, asymmetric information, externalities, and public goods.

**Prerequisites:** ECO 641 or ECO 701.

**ECO 643 Econometric Methods 4**

Introduction to advanced econometric applications. Topics may include seemingly unrelated regressions, simultaneous equations, identification, two-stage least squares, and sample selection models. Application to economic data using statistical software emphasized.

**Prerequisites:** ECO 625 or permission of instructor.

**ECO 644 Econometric Theory 3**

Foundations of mathematical statistics and linear econometric models. Topics include discrete and continuous probability distributions, random sampling and asymptotic analysis, the linear regression model, hypothesis testing, and statistical programming and simulation using SAS or other statistical software.

**Prerequisites:** ECO 643 or ECO 705.

**ECO 646 Macroeconomics 4**

Advanced theory of aggregate economic activity. Economic models developed to explain economic growth, activity, and fluctuations based on classical, Keynesian, monetarist, and new classical schools of thought.

**ECO 657 Managerial Economics 3**

Economic analysis of markets, and government intervention that addresses the sustainability of fiscal, monetary and exchange rate policy and their short-run and long-run impact on the global environment.

**ECO 663 Predictive Data Mining 3**

Provides a working knowledge of statistical tools important to the emerging and practically relevant field of predictive data mining and the discovery of patterns in big data sets.

**ECO 664 Time Series and Forecasting 3**

Students learn to analyze and forecast time series data. Topics include stochastic linear difference equations, tests for trends and stationarity, and ARIMA modeling. Application to economic data emphasized.

**ECO 691 Economics Internship 1-3**

Individual course of study consisting of an applied economics and/or data analysis component and written work that complements the program's academic work. Supervised by faculty and an appropriate manager.

**Prerequisites:** Permission of the Director of Graduate Study.

**Notes:** May be repeated, maximum of 3 credit hours may apply toward the M.A. degree, course cannot be applied toward the Ph.D. degree.

**ECO 701 Microeconomics 4**

Analyzes how consumers and producers make economic decisions, focusing on theoretical models and their applications. Students will learn how consumers make purchasing decisions, how firms optimize production and profits, and how these decisions change under uncertainty. Topics include consumer demand theory, game theory, production theory, and optimization methods.

**Prerequisites:** Admission to the Economics Concentration of the Ph.D. in Business Administration or permission of the Director of Graduate Studies.

**ECO 702 Macroeconomics 4**

Provides an overview of the tools of modern macroeconomic theory. Students will gain an understanding of these tools, their limits, and their application to policy issues.

**Prerequisites:** Admission to the Economics Concentration of the Ph.D. in Business Administration program or permission of the Director of Graduate Studies.

**ECO 705 Econometric Methods 4**

Focuses on the statistical concepts and methods necessary to analyze and apply linear econometric models. Topics cover the foundations of mathematical statistics and linear regression modeling.

**Prerequisites:** Admission to the Economics Concentration of the Ph.D. in Business Administration or permission of the Director of Graduate Studies.

**ECO 712 Directed Studies in Economics III 1-3**

Individual study of an advanced topic in economics. Regular conferences with the instructor are required.

**Prerequisites:** Permission of Director of Graduate Study.

**Notes:** May be repeated for credit.

**ECO 728 Research Methods in Applied Economics I 3**

Advanced techniques in data preparation. Topics include data formats, error checking, merging data, large data sets, and missing observations.

**ECO 730 Introduction to Cost Effectiveness 3**

Methods used by health economists to evaluate health care technologies and programs. Learn how to critique and use health economic evaluations, common health economic evaluation tools and methods.

**ECO 731 Applied Policy Methods 3**

Provides applied foundation for policy study with emphasis on an economic efficiency perspective including history of policy analysis, market and government failure, and alternative methods for policy analysis.

**ECO 734 Public Policies Toward Innovation 3**

Examines public-sector innovation policies from a domestic and global perspective.

**ECO 735 Labor Economics 3**

Examines the operation of the labor market, its institutions, and labor market policies. Topics include labor supply and demand, returns to education, family and household economics, wage inequality, and unions.

**Prerequisites:** ECO 643 or ECO 705.

**Notes:** May be repeated for credit.

**ECO 736 Public Economics 3**

Examines governmental expenditures and taxes and the constraints imposed on them within a federal, multi-tiered governmental structure. Topics include education, public health, housing and community development, infrastructure, and environmental regulation.

**Prerequisites:** ECO 641 or ECO 701.

**ECO 737 Empirical Health Economics 3**

Examines the market for health services and the production of health. Topics include the demand and supply for health care professionals, health insurance and financing, and regulation of medical markets.

**Notes:** May be repeated for credit.

**ECO 738 Topics in Economics 3**

Application of economic theory and econometrics to a specific topic in public, labor, or health.

**Prerequisites:** ECO 641 or ECO 701, ECO 643 or ECO 705.

**Notes:** May be repeated for credit.

**ECO 739 Independent Field Course 1-4**

A faculty-directed, independent study of a research area that is particularly related to a student's primary field of interest.

**Prerequisites:** Permission of the Graduate Program Director.

**Notes:** May be repeated for credit, may serve as one required major field course.

**ECO 741 Advanced Mathematical Economics 3**

Mathematical concepts and techniques that are used in advanced economic theory. Material includes sets and functions, constrained and unconstrained programming, and difference and differential equations.

**Prerequisites:** ECO 642.

**ECO 742 Advanced Microeconomic Theory 3**

Examines decision making by households and firms with an emphasis on the meaning and empirical interpretation of theoretical models. Topics include duality theory, general equilibrium, and welfare economics.

**Prerequisites:** ECO 701 or permission of the Director of Graduate Studies.

**ECO 745 Topics in Advanced Econometrics 3**

Focuses on estimation and inference in linear and non-linear econometric models. Topics include endogeneity, causal inference, panel data, and limited and qualitative dependent variable models.

**Prerequisites:** Admission to the Economics Concentration of the Ph.D. in Business Administration program or permission of the Director of Graduate Studies.

**ECO 746 Advanced Econometric Theory II 3**

Advanced methods in microeconomic analysis, covers linear models for panel data with unobserved heterogeneity, M-estimators, maximum likelihood, generalized methods of moments, and discrete response models. Includes lab.

**Prerequisites:** ECO 745 or permission of instructor.

**ECO 747 Time Series 3**

Introduction to graduate-level time series econometrics. Provides a foundation in time series methods that can be applied in high level empirical research. Focuses on theoretical topics and applications. Topics include time series regressions, univariate stationary time series models, univariate and non-stationary time series models, and multivariate models.

**ECO 748 Research Methods in Applied Economics 3**

Examines research methods used in advanced applied economics. Applications vary by semester but are typically drawn from labor, health, public, or financial economics.

**Prerequisites:** BUS 751, ECO 705, and ECO 745, or permission of the Director of Graduate Studies.

**ECO 749 Economics Internship 1-3**

Individual course of study consisting of an applied economics and/or data analysis component and written work that complements the program's academic work. Supervised by faculty and an appropriate manager.

**Prerequisites:** Permission of the Director of Graduate Study or Department Head.

**ECO 797 Seminar in Empirical Economics 3-6**

A supervised seminar in which students formulate a major empirical research project and identify, collect, and assemble the data required to pursue that research.

**Prerequisites:** Permission of Graduate Program Director.

**Notes:** May be repeated for credit.

**ECO 798 Seminar in Economic Research 3-6**

A supervised research seminar in which students complete an extensive review of the literature in their chosen area of research specialization.

**Prerequisites:** Permission of Graduate Program Director.

**Notes:** May be repeated for credit.

**ECO 799 Dissertation 1-12**

**ECO 802 Dissertation Extension 1-3**

Dissertation Extension.

**ECO 803 Research Extension 1-3**

Research Extension.