

ECONOMICS (ECON)

undefined

ECON Courses

ECON 2001 Survey of Economics (3 units)

Term Typically Offered: F, SP

2026-28 or later catalog: GE Area 4B

2020-26 catalogs: GE Area D2

Basic principles of microeconomics and macroeconomics. Emphasis on applications to current local, national and global economic issues. Course may be offered in classroom-based or hybrid format. 3 lectures. Crosslisted as ECON/HNRS 2001. Fulfills GE Area 4B (GE Area D2 for students on the 2020-26 catalogs). Formerly ECON/HNRS 201.

ECON 2021 Using Big Data to Solve Economic and Social Problems (3 units)

Term Typically Offered: F, SP

Introduction to basic methods in empirical economic analysis, including regression, causal inference, and machine learning. Applications of the methods to equality of opportunity, education, racial disparities, innovation and entrepreneurship, health care, climate change, criminal justice, and tax policy. Course may be offered in classroom-based or hybrid format. 3 lectures. Formerly ECON 202.

ECON 2030 Microeconomics (3 units)

Term Typically Offered: F, SP

Microeconomic principles. Marginal and equilibrium analysis of commodity and factor markets in determination of price and output. Normative issues of efficiency and equity. 3 lectures. Formerly ECON 221.

ECON 2040 Macroeconomics (3 units)

Term Typically Offered: F, SP

2026-28 or later catalog: GE Area 4B

2020-26 catalogs: GE Area D2

Introduction to macroeconomics including aggregate output, employment, inflation, and economic growth. Money and the monetary system. Macroeconomic policy including fiscal and monetary policy. 3 lectures. Fulfills GE Area 4B (GE Area D2 for students on the 2020-26 catalogs). Formerly ECON 222.

ECON 3015 Programming for Economics and Analytics (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing.

Basic principles of algorithmic problem solving and computer programming for economics and business analytics applications. Functions, classes, iteration, recursion, and data structures. Testing and debugging. Design of algorithms and algorithmic complexity. Stochastic programs. Graph optimization and economic applications. 3 lectures. Formerly ECON 395.

ECON 3015A Programming for Economics and Analytics Project (1 unit)

Term Typically Offered: F, SP

Corequisite: ECON 3015.

Completion of class project under faculty supervision that complements the coursework on programming for economics and analytics. Course offered online only. 1 activity.

ECON 3021 Econometrics (4 units)

Term Typically Offered: F, SP

Prerequisite: ECON 221 or ECON 2030 and ECON 222 or ECON 2040, or ECON 201 or ECON 2001; and one of the following: MATH 121, MATH 141, MATH 221, MATH 1261, MATH 1264, or MATH 1267; and one of the following: STAT 252, STAT 301, STAT 1510, or STAT 1220.

Statistical methods applied to economic data to analyze relationships among variables, test economic theories, and predict outcomes. 4 lectures. Formerly ECON 339.

ECON 3030 Intermediate Microeconomics (4 units)

Term Typically Offered: F, SP

Prerequisite: One of the following: ECON 201, ECON 221, ECON 2001, or ECON 2030; and one of the following: MATH 121, MATH 141, MATH 1261, or DATA/MATH 1264. Corequisite: One of the following: MATH 123, MATH 241, DATA/MATH 1265, or MATH 2263.

Consumer behavior and the theory of demand. Production, cost, supply functions, perfect competition, monopoly and oligopoly, game theory, information economics, and factor markets. 4 lectures. Formerly ECON 311.

ECON 3039 Microeconomics for Business and Public Policy (3 units)

Term Typically Offered: F, SP

Prerequisite: One of the following: ECON 201, ECON 221, ECON 2001, or ECON 2030; and one of the following: MATH 121, MATH 141, MATH 221, MATH 1261, DATA/MATH 1264, or MATH 1267.

Consumer behavior and the theory of demand. Production, cost, supply functions, perfect competition, monopoly and oligopoly, information technology, externalities, and public goods. Not open to students with credit in ECON 311 or ECON 3030. 3 lectures.

ECON 3040 Intermediate Macroeconomics (4 units)

Term Typically Offered: F, SP

Prerequisite: One of the following: ECON 201, ECON 222, ECON 2001, or ECON 2040. Corequisite: ECON 311 or ECON 3030.

Study of the macroeconomy, macroeconomic theories, and macroeconomic policies. Nature of growth. Business cycles. Money and inflation. Fiscal policy. Monetary policy. Financial crises. 4 lectures. Formerly ECON 313.

ECON 3041 Money, Banking and Credit (3 units)

Term Typically Offered: F, SP

Prerequisite: One of the following: ECON 201, ECON 222, ECON 2040, or ECON 2001.

Financial markets and institutions. Structure of the banking industry and impacts of technological change in banking. Structure and operations of the Federal Reserve. Impacts of monetary policy on the economy. 3 lectures. Formerly ECON 337.

ECON 3050 The Economics of Equity and Social Welfare (4 units)

Term Typically Offered: F, SP

Prerequisite: ECON 311 or ECON 3030.

Distributive justice and fairness in resource allocation. Welfare properties of exchange and production economies. Welfare properties of economies with externalities and public goods. The measurement of well-being and inequality. Economic inequality, common pool resources, and climate change. 4 lectures. Formerly ECON 312.

ECON 3061 International Trade Theory (3 units)

Term Typically Offered: SP

Prerequisite: ECON 221 or ECON 2030 and ECON 222 or ECON 2040; or ECON 201 or ECON 2001.

Theory of comparative advantage, gains from trade, and recent developments in trade theory. Examination of tariffs, quotas, exchange controls, other trade barriers and underlying policy issues. Review of U.S. commercial policy, General Agreement on Tariffs and Trade (GATT), the common market, regional and world economic organizations. Not open to students with credit in ECON 404 or ECON 4061. 3 lectures. Formerly ECON 330.

ECON 3071 Environmental and Natural Resource Economics (3 units)

Term Typically Offered: TBD

2026-28 or later: Upper-Div GE Area 4

2020-26 catalogs: Upper-Div GE Area D

Prerequisite: Completion of GE Area 1 with grades of C- or better (GE Area A for the 2020-26 catalogs); completion of GE Area 2 with a grade of C- or better (GE Area B4 for the 2020-26 catalogs); and ECON 201 or ECON 2001, or ECON 221 or ECON 2030 and ECON 222 or ECON 2040.

Economics of environmental resource management. Conservation, sustainability, and dynamic efficiency in natural resources. Effects of property rights and economic incentives on environmental and economic systems. Design of local and global environmental policies to align market outcomes with social welfare goals. Not open to students with credit in ECON 4062, ECON 431, or ECON 4071. 3 lectures. Fulfills GE Upper-Division 4 (GE Area Upper-Division D for students on the 2020-26 catalogs).

ECON 3081 Comparative Economic Systems (3 units)

Term Typically Offered: F, SP

2026-28 or later: Upper-Div GE Area 4

2020-26 catalogs: Upper-Div GE Area D

Prerequisite: Junior standing; completion of GE Area 1 with grades of C- or better (GE Area A for the 2020-26 catalogs); completion of GE Area 2 with a grade of C- or better (GE Area B4 for the 2020-26 catalogs); and one of the following: ECON 201, ECON 222, ECON 2001, or ECON 2040.

Exploration of economic systems as frameworks for decision-making in production, distribution, and consumption. Examination of how different systems-market-based, government-controlled, and mixed-affect income distribution, resource allocation, and overall economic well-being. 3 lectures. Fulfills GE Upper-Division 4 (GE Area Upper-Division D for students on the 2020-26 catalogs). Formerly ECON 304.

ECON 4010 Mathematical Economics (3 units)

Term Typically Offered: SP

Prerequisite: ECON 311 or ECON 3030.

Mathematical techniques employed in microeconomic and macroeconomic theory, with applications to specific economic models in a variety of economic fields. Use of multivariate calculus and linear algebra in formulating economic models. 3 lectures. Formerly ECON 408.

ECON 4010A Mathematical Economics Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4010.

Use of mathematical techniques employed in microeconomic and macroeconomic theory. Application of mathematical techniques to study economic problems. Course offered online only. 1 activity.

ECON 4011 Optimization in Julia for Economics and Data Science (3 units)

Term Typically Offered: F

Prerequisite: One of the following: ECON 395, CSC 101, CSC 231, CSC 232, ECON 3015, CSC 1001, CSC 1031 or CSC 1032.

Optimization as a foundation for Economics and Data Science, using the Julia environment. Constrained and unconstrained least squares via QR factorization. Duality. Applications to game theory, resource allocation, econometrics, and machine learning. 3 lectures. Crosslisted as DATA/ECON 4011.

ECON 4011A Julia for Data Analysis Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4011.

Completion of coding exercises for data analysis in Julia under faculty supervision that complements the coursework on optimization in Julia for economics and data science. Course offered online only. 1 activity. Crosslisted as DATA/ECON 4011A.

ECON 4012 Probability Models for Economic Decisions (3 units)

Term Typically Offered: F

Prerequisite: ECON 311 or ECON 3030.

Decision making in complex, realistic situations. Simulating discrete and continuous, independent and correlated, random variables. Decision making under risk and uncertainty. Adverse selection, moral hazard, and risk sharing. Dynamic models of growth and arrivals. 3 lectures. Formerly ECON 409.

ECON 4012A Probability Models for Economic Decisions Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4012.

Selection and completion of a project under faculty supervision that complements coursework on probability models for economic decisions. Course offered online only. 1 activity.

ECON 4013 Experimental and Behavioral Economics (3 units)

Term Typically Offered: SP

Prerequisite: ECON 311 or ECON 3030; and ECON 395 or ECON 3015.

Design and implementation of economic experiments. Computer programming of experiments and statistical analysis of experimental results. Behavioral economic models as an alternative to neoclassical economics include prospect theory, time-inconsistent preferences, and social preferences. 3 lectures. Formerly ECON 445.

ECON 4013A Experimental and Behavioral Economics Project (1 unit)

Term Typically Offered: SP

Corequisite: ECON 4013.

Completion of an original design, implementation and analysis of a lab experiment testing economic theory under faculty supervision. Course offered online only. 1 activity.

ECON 4021 Advanced Econometrics (3 units)

Term Typically Offered: F, SP

Prerequisite: ECON 339 or ECON 3021.

Advanced econometric techniques used to analyze relationships between variables, test economic theories, or uncover causal effects. Concepts in causal inference such as randomization, covariate-adjustment methods, and instrumental variables. Binary-choice and nonlinear models. 3 lectures. Formerly ECON 440.

ECON 4021A Advanced Econometrics Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4021.

Application of advanced econometric techniques to real-world data to address economic problems by analyzing relationships between variables, testing economic theories, or uncovering causal effects. Course offered online only. 1 activity.

ECON 4024 Applied Forecasting (3 units)

Term Typically Offered: TBD

Prerequisite: ECON 339 or ECON 3021.

Use of economic, financial, and other time series data to build and evaluate forecasting models. Forecasting methods including regression-based models, exponential smoothing, AutoRegressive Integrated Moving Average (ARIMA) and the Generalized AutoRegressive Conditional Heteroskedasticity (GARCH) family of models. 3 lectures. Formerly ECON 406.

ECON 4024A Applied Forecasting Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4024.

Selection and completion of a time series and forecasting project under faculty supervision. Course offered online only. 1 activity.

ECON 4025 Causal Machine Learning for Economics (3 units)

Term Typically Offered: SP

Prerequisite: One of the following: ECON 395, CSC 101, CSC 231, CSC 232, ECON 3015, CSC 1001, CSC 1031, or CSC 1032; and one of the following: ECON 339, STAT 324, STAT 334, ECON 3021, STAT 3430, or STAT 3530.

Prediction methods for causal inference. Directed acyclic graphs, double lasso, and double machine learning. Economic applications. 3 lectures.

ECON 4025A Causal Machine Learning for Economics Project (1 unit)

Term Typically Offered: SP

Corequisite: ECON 4025.

Machine learning and causal inference replication exercises. Complements the coursework on causal machine learning for economics. Course offered online only. 1 activity.

ECON 4031 Industrial Organization (3 units)

Term Typically Offered: SP

Prerequisite: ECON 311 or ECON 3030.

Application of basic tools of economics to American industry. Case studies of individual firms and industries. Performance of various business structures, such as monopoly and oligopoly. Effects of government regulation and antitrust policy. 3 lectures. Formerly ECON 403.

ECON 4031A Industrial Organization Project (1 unit)

Term Typically Offered: F

Corequisite: ECON 4031.

Application of economic modeling to analyze a selected concept from the field of Industrial Organization. Course offered online only. 1 activity.

ECON 4042 Monetary Economics (3 units)

Term Typically Offered: TBD

Prerequisite: ECON 313 or ECON 3040.

The role of money in our economy. The links between monetary policy, interest rates, prices, housing markets, mortgage lending and overall economic activity. Public policy issues relating to real estate markets. 3 lectures. Formerly ECON 424.

ECON 4042A Monetary Economics Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4042.

Application of economic theory and econometrics to the analysis of recent events related to the field of monetary economics. Course offered online only. 1 activity.

ECON 4043 International Monetary Economics (3 units)

Term Typically Offered: SP

Prerequisite: ECON 313 or ECON 3040.

Nature of international payments, U.S. balance of payments. Theory and practice of foreign exchange rate determination under the gold standard, paper standard, and International Monetary Fund (IMF) system. International money and capital markets. Problems of international liquidity and monetary stability. 3 lectures. Formerly ECON 405.

ECON 4043A International Monetary Economics Project (1 unit)

Term Typically Offered: SP

Corequisite: ECON 4043.

Economics research in the field of international monetary economics. Course offered online only. 1 activity.

ECON 4052 Public Finance and Public Policy (3 units)

Term Typically Offered: TBD

Prerequisite: ECON 312 or ECON 3050.

Principles of rational decision making with respect to government revenues and spending. Externalities and public goods. Measurement of costs and benefits, and criterion selection. Social insurance. Taxation. 3 lectures. Formerly ECON 410.

ECON 4052A Public Finance and Public Policy Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4052.

Use statistical software to analyze topics from public finance. Evaluation of government policy using the criteria of economic efficiency and equity. Cost benefit analysis. Course offered online only. 1 activity.

ECON 4053 Labor Economics (3 units)

Term Typically Offered: F

Prerequisite: ECON 312 or ECON 3050.

Wage determination theory. Basic economic factors that affect the labor movement. Economic impact of union activities on employment, output, income, wages, prices, and national economic policy. 3 lectures. Formerly ECON 413.

ECON 4053A Labor Economics Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4053.

Use of software to work with government labor data. Summarize labor outcomes and analyze determinants of wages. Course offered online only. 1 activity.

ECON 4054 Economics of Education (3 units)

Term Typically Offered: F

Prerequisite: ECON 312 or ECON 3050.

Application of microeconomic theory, public economics, labor economics, industrial organization to the economics of education. Relationship between primary, secondary, and higher education and labor markets, education policy, and the impact of educational investments on individual and societal outcomes. 3 lectures.

ECON 4055 Urban Economics (3 units)

Term Typically Offered: SP

Prerequisite: ECON 311, ECON 3030, or ECON 3039. Recommended: ECON 312 or ECON 3050.

Application of basic tools of economic analysis to problems of urban regions. Economics of urban land use, zoning, housing, transportation, local public goods, and crime. 3 lectures. Formerly ECON 434.

ECON 4055A Urban Economics Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4055.

Use of statistical software and economic modeling to analyze topics from urban economics. Spreadsheet analysis of residential mortgages. The hedonic method of real estate valuation. Economic policy analysis. Course offered online only. 1 activity.

ECON 4061 International Trade Theory (3 units)

Term Typically Offered: TBD

Prerequisite: ECON 312 or ECON 3050.

Theory of comparative advantage, neoclassical model of trade, offer curves and terms of trade, edgeworth boxes, valuation of factor inputs, effects of migration and mobility of funds, emerging growth and trade distortions, welfare effects of trade, and recent developments in trade theory. 3 lectures. Formerly ECON 404.

ECON 4061A International Trade Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4061.

Review and critique of academic literature and/or news media in regard to a selected concept from the field of international trade. Course offered online only. 1 activity.

ECON 4062 Development Economics (3 units)

Term Typically Offered: SP

Prerequisite: ECON 312 or ECON 3030; and ECON 440 or ECON 4021.

Economic market failures and poverty traps. Public policies for market failures. Causal econometric techniques, and replication exercises on microfinance and microinsurance. Education, health, and agriculture policies, intrahousehold allocations and gender, and corruption and governance. 3 lectures.

ECON 4071 Environmental Economics (3 units)

Term Typically Offered: F

Prerequisite: ECON 312 or ECON 3050.

Economic dimensions of environmental abuse and protection. Use of simple economic models in developing and evaluating environmental policies. Overview of current environmental problems. Issues related to the sustainability of economic growth at the national and international levels. 3 lectures. Formerly ECON 431.

ECON 4071A Environmental Economics Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4071.

Application of economic modeling to analyze a selected concept from the field of environmental economics. Course offered online only. 1 activity.

ECON 4072 Economics of Energy and Resources (3 units)

Term Typically Offered: SP

Prerequisite: ECON 312 or ECON 3050.

Economic theory and public policies for natural resources and energy. Dynamic resource and energy models for public and private sector growth. Principles of capital theory emphasized. Computer software applications of natural resource and energy use under uncertainty. 3 lectures. Formerly ECON 432.

ECON 4072A Economics of Energy and Resources Project (1 unit)

Term Typically Offered: TBD

Corequisite: ECON 4072.

Application of economic modeling to analyze a concept in natural resource economics. Course offered online only. 1 activity.

ECON 4073 Economics of Land and Water (3 units)

Term Typically Offered: TBD

Prerequisite: ECON 312 or ECON 3050.

Economic analysis of natural resource issues, policies and management with an emphasis on land and water use decisions in the western United States. Urban demand for water, water supply, economic growth, economic impacts of surface water law and institutions, and land management. 3 lectures. Formerly ECON 435.

ECON 4073A Economics of Land and Water Project (1 unit)

Term Typically Offered: SP

Corequisite: ECON 4073.

Use of computer software to analyze problems in water and land management. Optimal water allocation, optimal forest management, water pricing. Course offered online only. 1 activity.

ECON 4082 Development of Economic Thought (3 units)

Term Typically Offered: TBD

Prerequisite: ECON 311, ECON 3030, or ECON 3039.

Analysis of ideas related to the development of economic theory in the Western civilization from the Greeks through the classical, neoclassical, and Keynesian to the current post-Keynesian concepts. 3 lectures. Formerly ECON 417.

ECON 4460 Applied Senior Project (4 units)

Term Typically Offered: F, SP

Prerequisite: Senior standing; ECON 311 or ECON 3030; ECON 313 or ECON 3040; ECON 339 or ECON 3021; and two 4000-level ECON courses.

Analysis of selected economic topics and problems in directed individual or group-based projects, which require application of economic models, principles and theory to investigate important business, economic or social issues. Formal report required. Course may be offered in classroom-based or online format. 4 seminars. Formerly ECON 464.

ECON 4470 Special Advanced Topics (1-3 units)

Term Typically Offered: TBD

Prerequisite: Consent of instructor.

Directed group study of special topics for advanced students. The Class Schedule will list topic selected. Repeatable up to 6 units. 1 to 3 lectures. Formerly ECON 470.

ECON 5010 Essential Mathematics for Economic Analysis (3 units)

Term Typically Offered: SU

Prerequisite: Graduate standing. Recommended: ECON 408 or ECON 4010.

Review and discussion of the math tools needed for graduate work in economics, including set theory, calculus, linear algebra, properties of functions, and optimization. 3 lectures. Formerly GSE 510.

ECON 5012 Evidence-Based Decision Analysis (3 units)

Term Typically Offered: SP

Prerequisite: Graduate standing and one of the following: ECON 5021, GSE 520, GSB 518, or GSB 5518. Recommended: GSE 524 or ECON 5015.

Representing uncertainty using discrete and continuous conditional probabilities. Monte Carlo simulation of independent and correlated random variables. Optimization under certainty and uncertainty. Case studies. 3 lectures. Formerly GSE 544.

ECON 5015 Computing and Machine Learning for Economics (3 units)

Term Typically Offered: F

Prerequisite: Graduate standing.

Use of computer programming for advanced data analysis in economics and analytics. Computer programming using statistical software, data gathering and cleaning, and machine learning. 3 lectures. Formerly GSE 524.

ECON 5016 Collaborative Software Development Environment for Economists (1 unit)

Term Typically Offered: F

Corequisite: GSE 524 or ECON 5015.

Best practices for scientific computing in economics research regarding effectiveness, efficiency, maintainability, reproducibility, clarity, scalability and portability. The Unix shell. Version control. Git and GitHub. Automation and Make. Job schedulers. Agile methodologies for project management. Elements of programming style. 1 lecture.

ECON 5020 Essential Statistics for Econometrics (3 units)

Term Typically Offered: SU

Prerequisite: Graduate standing. Recommended: GSE 510 or ECON 5010.

Statistical concepts for graduate work in econometrics, including probability theory, random variables, distribution functions, independence, expectations, covariance, correlation, random samples, estimation methods, properties of estimators, asymptotic theory, hypothesis testing, confidence intervals. 3 lectures. Formerly GSE 518.

ECON 5021 Advanced Econometrics I (3 units)

Term Typically Offered: F

Prerequisite: Graduate standing; and GSE 518 or ECON 5020.

Linear regression model. Confidence and prediction intervals. Hypothesis testing. Generalized regression model and heteroscedasticity. Maximum likelihood estimator and its properties. Simulation and resampling methods. 3 lectures. Formerly GSE 520.

ECON 5022 Advanced Econometrics II (3 units)

Term Typically Offered: SP

Prerequisite: Graduate standing; and GSE 520 or ECON 5021.

Maximum likelihood estimation. Binary, multinomial, and ordered discrete response models. Simulation methods, bootstrap standard errors. Truncated, censored regression. Structural equation modeling. Random utility and mixed logit models. Demand estimation. Generalized Method of Moments (GMM) estimation. Single agent dynamic models. 3 lectures. Formerly GSE 522.

ECON 5023 Microeconometrics (3 units)

Term Typically Offered: SP

Prerequisite: GSE 520 or ECON 5021.

Limited dependent variables and selection models. Quantile regression and nonparametric methods. Causal inference: Potential outcomes framework, causal treatment effects, randomization, matching, propensity-score methods, instrumental variables, regression discontinuity, difference-in-difference, two-way fixed effects, synthetic control, and econometrics of randomized experiments. 3 lectures. Formerly GSE 526.

ECON 5024 Modeling Financial Time Series (3 units)

Term Typically Offered: SP

Prerequisite: one of the following: GSB 518, GSB 5518, GSE 518, or ECON 5020; and GSE 520 or ECON 5021.

Time-series analysis to model the risk and return of financial assets. Linear Time-Series models, Autoregressive Integrated Moving Average (ARIMA), Stationary and Non-stationary Series, Cointegration, Vector Auto-regression (VAR), Vector Error Correction (VECM), Generalized Autoregressive Conditional Heteroskedasticity family (GARCH), Value-at-Risk (VaR), and Extreme Value Theorem. Course may be offered in classroom-based, online, or hybrid format. 3 lectures. Crosslisted as ECON 5024/GSB 5548.

ECON 5025 Machine Learning for Prediction and Causal Inference (3 units)

Term Typically Offered: SP

Corequisite: GSE 526 or ECON 5023.

Regularization, model selection, and supervised learning. Post model selection inference for causal effects. Double/debiased machine learning, causal trees, causal forests, and synthetic controls. 3 lectures. Formerly GSE 552.

ECON 5029 Econometrics and Data Analysis (3 units)

Term Typically Offered: F

Prerequisite: One of the following: GSB 518, GSE 518, GSB 5518, or ECON 5020.

Estimation and analysis of econometric models for analyzing business data. Linear regression models, robust standard errors, causal inference, instrumental variables, maximum likelihood estimation, and logistic regression models and extensions. Course may be offered in classroom-based, online, or hybrid format. 3 lectures. Formerly GSE 519.

ECON 5030 Microeconomic Analysis (3 units)

Term Typically Offered: F

Prerequisite: GSE 510 or ECON 5010.

Preferences and choice, preferences over commodities, consumer demand theory, producer theory, choice under uncertainty, simultaneous and sequential move games, incomplete information games, mechanism and incentive design. 3 lectures. Formerly GSE 511.

ECON 5031 Industrial Economics (3 units)

Term Typically Offered: SP

Prerequisite: GSE 511 or ECON 5030.

Economic theories of industrial organization with specific reference to cartels, market concentration and performance, vertical integration, franchise contracts, ownership and control of firms, multipart and discriminatory pricing, and tie-in sales. Antitrust law and government regulation of industry. 3 lectures. Formerly GSE 538.

ECON 5032 Incentives and Market Design (3 units)

Term Typically Offered: SP

Prerequisite: GSE 511 or ECON 5030.

Ascending, first-price, second-price, and double auctions. Revenue equivalence, multi-unit auctions, the Vickrey-Clarke-Groves mechanism, and matching markets. The deferred acceptance algorithm, the immediate acceptance algorithm, and the many-to-one matching model. 3 lectures. Formerly GSE 546.

ECON 5040 Dynamic Stochastic Modeling (3 units)

Term Typically Offered: SP

Prerequisite: GSE 524 or ECON 5015; and GSE 511 or ECON 5030.

Finite Markov chains, linear state space models, dynamic programming, autoregressive-1 (AR1) processes, optimal growth models, optimal job search models, Arrow securities, consumption-based asset pricing. 3 lectures. Formerly GSE 512.

ECON 5052 Public Economics (3 units)

Term Typically Offered: TBD

Prerequisite: GSE 511 or ECON 5030.

Economic analysis of the rationale for public expenditure and taxation. Externalities, pollution and public policy, income redistribution and public welfare, public goods, collective choice and political institutions, cost-benefit analysis, taxation and tax policy, and state-local finance. 3 lectures. Formerly GSE 536.

ECON 5053 Advanced Labor Economics (3 units)

Term Typically Offered: SP

Prerequisite: GSE 520 or ECON 5021; and GSE 526 or ECON 5023.

Research methods in labor economics and application of modern empirical techniques to the analysis of labor markets. Labor supply and demand, discrimination, migration, and human capital accumulation. 3 lectures. Formerly GSE 542.

ECON 5061 International Economics (3 units)

Term Typically Offered: TBD

Prerequisite: GSE 511 or ECON 5030.

Analysis of the international movement of goods, services, capital and payments. The role of exchange rates, tariffs, quotas, and transport costs. Relationship between international trade and economic growth. 3 lectures. Formerly GSE 534.

ECON 5071 Environmental and Natural Resource Economics (3 units)

Term Typically Offered: TBD

Prerequisite: GSE 511 or ECON 5030.

Economic analysis of pollution, congestion, public good provision, and natural resource conservation. Static and dynamic efficiency, economic growth and sustainability, pollution taxes, marketable permits, and the design of market-based regulations. 3 lectures. Formerly GSE 532.

ECON 5500 Independent Study (1-3 units)

Term Typically Offered: TBD

Prerequisite: Graduate standing and consent of department head.

Advanced study planned and completed under the direction of a departmental faculty member. Repeatable up to 6 units. Formerly GSE 500.

ECON 5560 Applied Economics Project (1-4 units)

Term Typically Offered: TBD

Prerequisite: Graduate standing in MS Quantitative Economics program. Recommended: ECON 5016.

Applied, real-world empirical projects in economics chosen according to the common interests and needs of the students enrolled. Repeatable up to 4 units. 1 to 4 seminars. Formerly GSE 580.

ECON 5570 Special Advanced Topics (1-3 units)

Term Typically Offered: TBD

Prerequisite: Graduate standing and consent of instructor.

Directed group study of special topics for graduate students. The Class Schedule will list topic selected. Repeatable up to 6 units. 1 to 3 lectures. Formerly GSE 570.

ECON 5597 Comprehensive Examination (0 units)

Term Typically Offered: SP

CR/NC

Prerequisite: Graduate standing and consent of department chair.

Culminating written exam for masters in quantitative economics demonstrating independent thinking using material from economic theory, econometrics, and computer programming. Scheduled in the final semester of the graduate program. Credit/No Credit grading only.