**ECONOMICS (ECON)**

**ECON 200. Special Problems for Undergraduates. 1-2 units**  
Term Typically Offered: TBD  
Prerequisite: Sophomore standing and consent of department head.  
Individual investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

**ECON 201. Survey of Economics. 4 units**  
Term Typically Offered: F, W, SP  
2020-21 or later catalog: GE Area D2  
2019-20 or earlier: GE Area D2 or D3  
Basic principles of microeconomics and macroeconomics. Emphasis on applications to current local, national and global economic issues. Not open to student with credit in ECON 222. Course may be offered in classroom-based or hybrid format. 4 lectures. Crosslisted as ECON/HNRS 201. Fulfills GE Area D2 (GE Area D2 or GE Area D3 for students on the 2019-20 or earlier catalogs).

**ECON 202. Using Big Data to Solve Economic and Social Problems. 4 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. 4 lectures.

**ECON 221. Microeconomics. 4 units**  
Term Typically Offered: F, W, SP  
Microeconomic principles. Marginal and equilibrium analysis of commodity and factor markets in determination of price and output. Normative issues of efficiency and equity. 4 lectures.

**ECON 222. Macroeconomics. 4 units**  
Term Typically Offered: F, W, SP  
2020-21 or later catalog: GE Area D2  
2019-20 or earlier: GE Area D2 or D3  
Introduction to macroeconomics including aggregate output, employment, inflation, and economic growth. Money and the monetary system. Macroeconomic policy including fiscal and monetary policy. 4 lectures. Fulfills GE Area D2 (GE Area D2 or GE Area D3 for students on the 2019-20 or earlier catalogs).

**ECON 270. Selected Topics. 1-4 units**  
Term Typically Offered: TBD  
Prerequisite: Open to undergraduate students and consent of instructor.  
Directed group study of selected topics. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

**ECON 303. Economics of Poverty, Discrimination and Immigration. 4 units**  
Term Typically Offered: FW,SPSU  
2020-21 or later: Upper-Div GE Area D  
2019-20 or earlier catalog: GE Area D5 USCP  
Prerequisite: Junior standing; completion of GE Area A with grades of C- or better; one course in GE Area B4 with a grade of C- or better (GE Area B1 for students on the 2019-20 or earlier catalogs); and ECON 201 or ECON 222.  
Economic analysis of the cause, extent and impact of poverty, discrimination and immigration and of the policies designed to address these socioeconomic issues. Emphasis on the experience of African-Americans, Latinos, and women in the United States. 4 lectures. Crosslisted as ECON/HNRS 303. Fulfills GE Upper-Division D (GE Area D5 for students on the 2019-20 or earlier catalogs); and USCP.

**ECON 304. Comparative Economic Systems. 4 units**  
Term Typically Offered: F, W, SP  
2020-21 or later: Upper-Div GE Area D  
2019-20 or earlier catalog: GE Area D5  
Prerequisite: Junior standing; completion of GE Area A with grades of C- or better; one course in GE Area B4 with a grade of C- or better (GE Area B1 for students on the 2019-20 or earlier catalogs); and ECON 201 or ECON 222.  
Analysis of economic systems as a set of mechanisms and institutions for decision making, and the implementation of decisions regarding income distribution, the levels of consumption and production, and the level of economic welfare. 4 lectures. Fulfills GE Upper-Division D (GE Area D5 for students on the 2019-20 or earlier catalogs).

**ECON 311. Intermediate Microeconomics I. 4 units**  
Term Typically Offered: F, W, SP  
Prerequisite: ECON 201 or ECON 221; and MATH 141 or MATH 221.  
Consumer behavior and the theory of demand; production, cost, supply functions; perfect competition; monopoly and oligopoly; labor markets. 4 lectures.

**ECON 312. Intermediate Microeconomics II. 4 units**  
Term Typically Offered: F, W, SP  
Prerequisite: ECON 311.  
Game theory; risk, uncertainty and information; choice over time; asset markets; general equilibrium; welfare economics, externalities and public goods. 4 lectures.

**ECON 313. Intermediate Macroeconomics. 4 units**  
Term Typically Offered: F, W, SP  
Prerequisite: ECON 201 or ECON 222. Corequisite: ECON 311.  
ECON 330. International Trade Theory. 4 units
Term Typically Offered: W
Prerequisite: Either ECON 221 and ECON 222, or ECON 201.

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, GATT, the common market, regional and world economic organizations. 4 lectures. Not open to students with credit in ECON 404 or equivalent.

ECON 337. Money, Banking and Credit. 4 units
Term Typically Offered: F, W
Prerequisite: Either ECON 221 and ECON 222, or ECON 201.

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. 4 lectures.

ECON 339. Econometrics. 4 units
Term Typically Offered: F, W, SP
Prerequisite: either ECON 221 and ECON 222; or ECON 201; MATH 141 or MATH 221, and STAT 252 or STAT 302.

Application of statistical methods useful in economics. General linear regression model. Specific issues and problems related to economic models: multicollinearity, autocorrelation, heteroscedasticity, dummy variables, lagged variables, and simultaneous equation estimation. Application and evaluation of selected examples of empirical economic research. Microcomputer applications. 4 lectures.

ECON 345. Environmental and Natural Resource Economics. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 201; or ECON 221 and ECON 222.

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. 4 lectures. Not open to students with credit in ECON 431, ECON 432 or equivalent.

ECON 395. Programming for Economics and Analytics. 4 units
Term Typically Offered: F, W
Prerequisite: Junior standing; STAT 252 or STAT 302.

Basic principles of algorithmic problem solving and computer programming for economics and business analytics applications. Functions, iteration, recursion, and data structures. Testing and debugging. Design of algorithms and algorithmic complexity. Stochastic programs. Graph optimization. Credit will only be granted in one of the following courses: CSC 108, CSC 202, ECON 395. 4 lectures.

ECON 400. Special Problems. 1-4 units
Term Typically Offered: TBD
Prerequisite: Consent of department head.

Individual investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units.

ECON 403. Industrial Organization. 4 units
Term Typically Offered: W
Prerequisite: ECON 312.

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. 4 lectures.

ECON 404. International Trade Theory. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 312.

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. 4 lectures.

ECON 405. International Monetary Economics. 4 units
Term Typically Offered: SP
Prerequisite: ECON 313.

Nature of international payments, U.S. balance of payments. Theory and practice of foreign exchange rate determination under the gold standard, paper standard, and IMF system; international money and capital markets; problems of international liquidity and monetary stability. 4 lectures.

ECON 406. Applied Forecasting. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 339.

Use of economic, financial, and other time series data to construct and evaluate forecasts. Forecasting methods including regression-based models, exponential smoothing, ARIMA and the GARCH family of models. 4 lectures.

ECON 408. Mathematical Economics. 4 units
Term Typically Offered: SP
Prerequisite: ECON 312.

Applications of quantitative techniques to topics in microeconomic and macroeconomic theory. Use of multivariate calculus and linear algebra in formulating static economic models. Applications of statistical inference, estimation and forecasting in economic models. 4 lectures.

ECON 409. Probability Models for Economic Decisions. 4 units
Term Typically Offered: F
Prerequisite: ECON 312.

ECON 410. Public Finance and Cost-Benefit Analysis. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 312 or graduate standing.

Principles of rational decision making with respect to government revenues and spending. Measurement of costs and benefits, and criterion selection. Taxation, user fees, deficit financing, public goods, neighborhood effects and zoning. Microcomputer applications. 4 lectures.

ECON 413. Labor Economics. 4 units
Term Typically Offered: F
Prerequisite: ECON 312.

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. 4 lectures.

ECON 417. Development of Economic Analysis. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 311.

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. 4 lectures.

ECON 424. Monetary Economics. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 313.

The role of money in our economy. Focus on the links between monetary policy, interest rates, prices, housing markets, mortgage lending and overall economic activity. Public policy issues relating to real estate markets. 4 lectures.

ECON 431. Environmental Economics. 4 units
Term Typically Offered: F
Sustainability Focused
Prerequisite: ECON 312.

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. 4 lectures.

ECON 432. Economics of Energy and Resources. 4 units
Term Typically Offered: W
Sustainability Focused
Prerequisite: ECON 312 or graduate standing.

Economic theory and public policies as applied to problems of natural resources and energy. Dynamic resource and energy models developed with reference to public and private sector growth. Application of the principles of capital theory emphasized. Case studies. Computer software applications in the study of natural resources and energy under uncertainty. 4 lectures.

ECON 434. Urban Economics. 4 units
Term Typically Offered: W
Prerequisite: ECON 311. Recommended: ECON 312.

Application of basic tools of economic analysis to problems of urban regions. Causes and possible cures for inadequate growth rate, income levels, and the quality of life in urban regions. 4 lectures.

ECON 435. Economics of Land and Water. 4 units
Term Typically Offered: TBD
Prerequisite: ECON 312 or graduate standing.

Economic analysis of natural resource issues, policies and management with an emphasis on land and water use decisions in the western U.S. Urban demand for water; water supply and economic growth; economic impacts of surface water law and institutions; economics of land management. 4 lectures.

ECON 440. Advanced Econometrics. 4 units
Term Typically Offered: F, SP
Prerequisite: ECON 339.

Modern advanced econometric techniques with a special focus on those commonly used in academic and non-academic settings. Discrete dependent variable models, instrumental variables, causal inference, nonlinear estimation, panel data, seemingly unrelated regression, distributed lag models, cointegration, and error correction models. 4 lectures.

ECON 445. Experimental and Behavioral Economics. 4 units
Term Typically Offered: SP
Prerequisite: ECON 312 and ECON 395.

Behavioral economic models as an alternative to neoclassical economics including prospect theory, time-inconsistent preferences, and social preferences. 4 lectures.

ECON 460. Research Methodology in Applied Economics. 4 units
Term Typically Offered: F, W
Prerequisite: ECON 313; ECON 339 and Senior standing.

Theory and practice of the development of economic analysis. Steps in the formulation and execution of an economics research project. 4 lectures.

ECON 461. Senior Project I. 2 units
Term Typically Offered: TBD
Prerequisite: ECON 313 and senior standing.

Selection and analysis of a problem under faculty supervision. Problems typical of those which graduates must solve in their fields of employment. Formal report is required. Minimum 120 hours total time.

ECON 462. Senior Project II. 2 units
Term Typically Offered: TBD
Prerequisite: ECON 313 and senior standing.

Selection and analysis of a problem under faculty supervision. Problems typical of those which graduates must solve in their fields of employment. Formal report is required. Minimum 120 hours total time.

ECON 464. Applied Senior Project. 4 units
Term Typically Offered: F, W, SP
Prerequisite: Senior standing and two 400-level ECON courses other than ECON 460. Corequisite: ECON 460.

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. 4 seminars.
ECON 470. Selected Advanced Topics. 1-4 units
Term Typically Offered: TBD
Prerequisite: Consent of instructor.

Directed group study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

ECON 519. Econometrics and Data Analysis. 4 units
Term Typically Offered: F
Prerequisite: GSE 518. Corequisite: GSE 524.

Identification and estimation of linear and nonlinear regression models for analyzing business data. Topics include multiple linear regression; model selection; robust standard errors; instrumental variables; maximum likelihood estimation; logit/probit, ordered logit/probit, and other microeconometric models. 4 lectures.