

# ECONOMICS (ECON)

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## **ECON 500 - Urban Economics (3 Credits)**

An analysis of economic forces affecting urbanization and the economic processes influencing urban form and structure. Spatial concepts are considered in addition to traditional micro-economic and macro-economic concepts. Topic coverage includes: the economic origin of cities; urban functions and the urban economic base, land-use structure and urban form, and urban efficiency.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

## **ECON 503 - International Trade Economics (3 Credits)**

Theory of international specialization, commercial policy, customs unions, and the effects of trade liberalization and protectionism; economic growth and multinational enterprises.

**Prerequisites:** ECON 321.

**Graduation with Leadership Distinction:** GLD: Global Learning

## **ECON 504 - International Monetary Economics (3 Credits)**

Exchange rate and balance of payments determination; purchasing-power parity; optimum currency areas, absorption, elasticity, monetary approaches, spot- and forward-exchange markets.

**Prerequisites:** C or better in ECON 322.

**Graduation with Leadership Distinction:** GLD: Global Learning

## **ECON 505 - International Development Economics (3 Credits)**

Economic theories of growth in developing countries. Use of factor resources; role of social and economic institutions; use of financial trade policies for growth.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**Graduation with Leadership Distinction:** GLD: Global Learning

## **ECON 506 - Labor Economics and Labor Markets (3 Credits)**

Economics of labor demand, labor supply, wage determination in competitive markets, migration, discrimination, unemployment, and labor unions. Theoretical models and empirical knowledge will be considered.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224; ECON 321.

## **ECON 507 - Comparative Economic Systems (3 Credits)**

An analysis of the organization and operation of the world's major economic systems.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**Graduation with Leadership Distinction:** GLD: Global Learning

## **ECON 508 - Law and Economics (3 Credits)**

Economic analysis and interpretation of the law. The economic effect of current law and optimal design of law to meet social objectives.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

## **ECON 509 - Economics of Sustainable Development (3 Credits)**

Exploration of the basic theory and practice of sustainable economic development. Topics include: environmental legislation, global agreements, sustainable development indicators, and economic strategies and methods to promote environmentally sound development.

**Prerequisites:** C or better in the following ECON 221 and ECON 222; or ECON 224; MATH 122.

**Graduation with Leadership Distinction:** GLD: Community Service

## **ECON 510 - Experimental Economics (3 Credits)**

Exploration of the basic theory and techniques of experimental economics. Topics include: basic game theory, experimental design, and elements of behavioral economic thought.

**Prerequisites:** C or higher in ECON 321.

## **ECON 511 - Senior Seminar in Economics (3 Credits)**

Philosophy and methodology of economics, perspectives on theory and empiricism, economic policy; individualized guided research.

**Prerequisites:** ECON 321, ECON 322, and ECON 436 with grade of C or higher.

## **ECON 514 - The Economics of Terrorism (3 Credits)**

Focuses on the following aspects of terrorism: (1) its causes/determinants (historical, social, cultural, economic, political, and religious determinants); (2) the organizational and funding structure of terrorist groups; (3) the tactics and weapons of terrorist groups; (4) mobilization and recruitment within terror networks; and (5) counterterrorism methods. Restricted to: Business Majors and Economics Arts and Sciences Majors.

**Prerequisites:** C or better in ECON 321.

## **ECON 515 - Industrial Organization (3 Credits)**

This course uses the tools of microeconomics and game theory to examine how firms compete and competition's impact on industry performance. Topics include: price discrimination, product differentiation, and oligopoly behavior.

**Prerequisites:** ECON 321.

## **ECON 516 - Political Economy (3 Credits)**

This course covers fundamental models of collective decision making, studies their empirical relevance, and considers interactions between the economy and politics.

**Prerequisites:** C or better in ECON 221 and ECON 222 or C or better in ECON 224.

## **ECON 520 - Economic Scholars I (3 Credits)**

This seminar course is designed to introduce students who have been accepted into the Econ Scholars program to economics research and real-world problem solving.

**Prerequisites:** B or better in ECON 321, ECON 322, and ECON 436.

## **ECON 521 - Economic Scholars II (3 Credits)**

This seminar course continues the work from Econ Scholars I and is reserved for students who have been accepted into the Econ Scholars program. Students will be placed in teams and partnered with local businesses, government agencies, or economics faculty members to work on real-world projects and academic research.

**Prerequisites:** B or better in ECON 520.

## **ECON 523 - Introduction to Mathematical Economics (3 Credits)**

Mathematical formulation of economic theories; the use of mathematics in the development and demonstration of economic relationships.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224; MATH 122, MATH 141, or the equivalent.

## **ECON 524 - Essentials of Economics (3 Credits)**

A course designed to acquaint the student with the principles of operation of the American economic system. A survey course for social studies teachers in secondary schools.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 526 - Managerial Economics (3 Credits)**

A study of the application of the economic theory of profits, competition, demand, and costs to analysis of problems arising in the firm and in decision making. Price policies, forecasting, and investment decisions are among the topics considered.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 530 - The Economics of Education (3 Credits)**

Investment in human capital; the economic value of schooling; internal efficiency of schools; faculty compensation; equity and efficiency of school finance systems; financing higher education.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 531 - Health Economics (3 Credits)**

Applications of economic analysis to health care. Structure and behavior of health-care markets. Description of health care policy issues.

**Prerequisites:** C or better in ECON 221 and ECON 222, or ECON 224.

**ECON 532 - Research and Policy from Birth to Kindergarten (3 Credits)**

Applications of economic analysis to early childhood. Topics may include research and policy related to families, pregnancy, birth, and early childhood.

**Prerequisites:** C or higher in ECON 221, ECON 224, or equivalent; C or higher in STAT 201, STAT 206, or equivalent with a grade of C or higher.

**ECON 548 - Environmental Economics (3 Credits)**

An analysis of the economics aspects of environmental decay, pollution control, and natural resource use. Analysis of the ability of the market system to allocate resources efficiently when economic activity is accompanied by environmental damage. Discussion of alternative public policy approaches to pollution control and natural resource conservation.

**Prerequisites:** C or better in ECON 221 and ECON 222 or C or better in ECON 224.

**Cross-listed course:** ENVR 548

**ECON 555 - Game Theory in Economics (3 Credits)**

Game theory as used to understand decision making in business, economics, politics and other real-world environments. Topics covered include: basic terminology; strategic, extensive, and combinatorial models; and equilibrium strategy.

**Prerequisites:** ECON 321 or MATH 141 and STAT 201 or C or higher in STAT 206.

**ECON 562 - Public Finance (3 Credits)**

Theory and practice of taxation: public revenue, expenditure, and debt.

**Prerequisites:** C or higher in ECON 321.

**ECON 589 - Topics in Economics (1-3 Credits)**

Individual topics to be announced with title.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 594 - Advanced Econometrics (3 Credits)**

Advanced econometric methods including quasi-experimental methods, applications of machine learning to causal inference and economic forecasting, and related topics.

**Prerequisites:** C or better in ECON 436.

**ECON 621 - Survey of Contemporary Economic Theory (3 Credits)**

Neo-classical value and distribution theory combined with income and employment theory.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 690 - Quantitative Foundations for Business and Economics I (3 Credits)**

Calculus and classical optimization methods applied to problems in business and economic analysis; matrices, derivatives, and integrals in the analysis of both univariate and multivariate business and economic models.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 691 - Quantitative Foundations for Business and Economics II (3 Credits)**

Statistics and probability theory applied to problems of business and economic analysis.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224; MGSC 690 or ECON 690.

**ECON 692 - Quantitative Methods I (3 Credits)**

Probability and statistics necessary for graduate study in economics and business administration; estimation, hypothesis testing, regression, analysis of variance, and nonparametric methods.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224.

**ECON 694 - Quantitative Methods II (3 Credits)**

A study of decision models useful in business administration. Topics covered include linear programming, sensitivity analysis and duality, network models, integer programming, determinate and stochastic dynamic programming, inventory, and queues.

**Prerequisites:** ECON 221 and ECON 222, or ECON 224; ECON 692, mathematics and computer portion of Fundamental Business Skills or equivalent.

**ECON 705 - Economic Growth and Development (3 Credits)**

Overall view of problems of economic development, including its history and relationship to the modern world. Brief consideration is given to such noneconomic factors as political, sociological, and cultural environments. Basic theories of growth are presented and critically evaluated.

**ECON 711 - Applied Microeconomics (3 Credits)**

Theory of demand, production, cost, pricing, distribution, and capital. Particular emphasis on applications of the theory to various problems faced by the firm.

**Prerequisites:** ECON 621.

**ECON 712 - Applied Macroeconomics (3 Credits)**

The modern theory of income determination. Inflation, unemployment, and interest rates in an open economy setting. Emphasis on economic policy.

**Prerequisites:** ECON 621.

**ECON 719 - Macroeconomics Analysis and International Economics (3 Credits)**

The modern theory of national employment, output, and the price level. Monetary and fiscal policy. International trade, exchange rates, and international capital markets.

**ECON 720 - Managerial Economics (3 Credits)**

The application of microeconomic concepts to managerial decisions. The concepts include demand, cost, market structure, pricing, profitability, and strategic behavior.

**ECON 727 - MA Economics Practicum (6 Credits)**

The MA Econ practicum course involves developing and executing a team-based project in applied economics. The course is broken down into sections to help each team maintain progress on their project and culminates in a day of project presentations open to the public. The instructor will provide general and specific guidance throughout. Team are encouraged to partner with businesses or government in developing their project, but may also choose a topic independently.

**Prerequisites:** B or better in ECON 711, ECON 712, and ECON 736.

**ECON 728 - Applied Microeconomics (3 Credits)**

Theory of demand, production, cost, pricing, distribution, and capital. Particular emphasis on applications of the theory to various problems faced by the firm.

**Prerequisites:** ECON 621

**ECON 736 - Applied Econometrics (3 Credits)**

The theory and application of linear regression analysis to economic problems. The course will present both finite-sample and asymptotic properties of regression estimators, and address problems that arise in using regression methods with economic data.

**Prerequisite or Corequisite:** STAT 201; and MATH 122 or MATH 141.

**ECON 740 - Applied Economic Forecasting (3 Credits)**

Examination of a variety of techniques that are used for forecasting and policy simulation purposes. Development of skills that have applications in business, government, and economic research.

**Prerequisites:** ECON 692 or equivalent.

**ECON 760 - International Trade, Theory and Policy (3 Credits)**

Classical and modern models of international trade, evaluation of tariffs and quotas, advantages and disadvantages of international trade agreements.

**Prerequisites:** ECON 711 or ECON 720, with exceptions made for anyone who has taken an undergraduate Intermediate Microeconomics class ECON 321 at USC in the last five years.

**ECON 784 - Health Economics (3 Credits)**

A critical introduction to the application of economic analysis to problems in the health care field. Selective surveys of the related scientific literature will be covered.

**ECON 794 - Programming Methods (3 Credits)**

Mathematical programming techniques which are useful in business and economics. Topics include: solution techniques and applications of linear programming, duality, theory, parametric programming, the decomposition problem, integer programming, dynamic programming, Lagrange multipliers, Kuhn-Tucker theory, and an introduction to control theory.

**Prerequisites:** ECON 694 or equivalent.

**ECON 798 - Economics Independent Study (1-3 Credits)**

Directed research on a topic to be developed by MS Economics student and instructor. May be repeated.

**ECON 799 - Thesis Preparation (1-9 Credits)****ECON 811 - Microeconomic Theory I (3 Credits)**

The modern theory of consumer behavior, production, the firm, and market structure.

**ECON 812 - Microeconomic Theory II (3 Credits)**

Advanced topics in microeconomics including general equilibrium theory and welfare economics.

**Prerequisites:** ECON 786.

**ECON 814 - Game Theory (3 Credits)**

This course teaches the fundamentals of game theory and strategic interaction. Concepts of normal and extensive form games, Nash Equilibrium, and subgame perfect equilibrium are defined and used to show how outcomes are achieved between two parties.

**ECON 815 - Topics in Microeconomics (3 Credits)**

Examination of new theories and applications in microeconomics. Analysis of advances in theory and the application of theory to new problems of consumer behaviour, industrial organization, and public economics.

**ECON 816 - Mathematical Economics (3 Credits)**

This course is to acquaint students with the mathematical methods currently being used in micro- and macroeconomic theory. Topics covered are the use in economics of point set topology, nonlinear programming, differential equations, calculus of variations, and control theory.

**Prerequisites:** ECON 523.

**ECON 817 - History of Economic Thought (3 Credits)**

An analysis of the development of economic theory with special emphasis on the evolution of alternative methodologies.

**ECON 818 - Welfare Economics (3 Credits)**

An endeavor to formulate propositions by which alternative economic situations open to society may be ranked on the scale of better or worse.

**Prerequisites:** ECON 788.

**ECON 821 - Macroeconomic Theory I (3 Credits)**

The modern theories of income determination, inflation, unemployment, and interest rates. Theories of consumption, investment, government expenditure, and taxation are presented.

**ECON 822 - Macroeconomic Theory II (3 Credits)**

Recent developments in macro-econometrics, dynamic models, and related topics.

**Prerequisites:** ECON 785 or the equivalent.

**ECON 824 - Monetary Theory (3 Credits)**

Monetary theory, monetary policy, and monetary reform. Theory of central banking and monetary equilibrium, and related topics.

**Prerequisites:** course in money and banking and intermediate economic theory.

**ECON 825 - Money and Banking (3 Credits)**

An in-depth study of the operation and economic significance of the monetary system (money, commercial banks, and the central bank) and monetary policy. Emphasis is on theory and empirical hypothesis testing as related to above topics.

**ECON 831 - Econometrics and Regression I (3 Credits)**

A treatment of single equation estimating techniques for the simple linear model, various nonlinear models, and the general linear model.

**Prerequisites:** ECON 792 or equivalent.

**ECON 832 - Econometrics and Regression II (3 Credits)**

Topics in generalized least squares, autocorrelation, distributed lag models, principal components, identification, and simultaneous estimating techniques.

**Prerequisites:** ECON 831.

**ECON 833 - Computational Methods for Economists (3 Credits)**

Theory and application of computational methods used to solve and estimate economic models. Solutions to economic models using numerical techniques and high-performance computing. Estimation of empirical models using custom built functions and numerical optimization.

**ECON 840 - Economic Growth (3 Credits)**

Advanced theory of economic growth. Mathematical models of growth, including the neoclassical model, endogenous growth models, and models of imperfect competition and growth, will be examined. Techniques of dynamic optimization are used to solve models. Empirical methods will be applied to models of economic growth.

**ECON 841 - Economic Development (3 Credits)**

Application of economic principles to regional analysis and planning. Geographic areas covered range from cities and counties to major regions of the nation. Subject areas include economic measurement, analysis, and development planning.

**ECON 843 - Economic History (3 Credits)**

Examination and interpretation of the record of events and trends in history using the concepts and tools of economic theory. Analysis of the effect of economic events on the course of world history.

**ECON 848 - Environmental Economics (3 Credits)**

Fundamentals of environmental and resource economics. Including concepts of pollution, instrument choice, management of renewable and non-renewable resources, and valuation techniques for environmental public goods.

**ECON 850 - Health Economics (3 Credits)**

A critical introduction to the application of economic analysis to problems in the health care field. Selective surveys of the related scientific literature will be covered.

**ECON 860 - International Trade Theory (3 Credits)**

Theory of international values, comparative advantage, and the gains from trade; theory of commercial policy, tariff structure, and welfare and trade.

**Prerequisites:** ECON 621.

**ECON 862 - International Monetary Economics (3 Credits)**

Theories of exchange rate and balance of payments determination (spot and forward exchange markets, interest rate arbitrage, purchasing power parity, and monetary approaches); adjustments under fixed and flexible exchange rates are analyzed.

**ECON 865 - Industrial Organization (3 Credits)**

Examination of industrial pricing, output, and investment practices in relation to the theory of the firm. Consideration of public aspects of these practices.

**ECON 870 - Labor Economics I (3 Credits)**

Topics studied include wage theory; the processes of wage determination; the impact of unions and collective bargaining on wage levels, prices, employment, and income distribution; bargaining theory and union-management relations; the union as an economic institution.

**ECON 872 - Labor Economics II (3 Credits)**

A descriptive and analytic study of manpower as an economic resource in the United States.

**ECON 875 - Economics of Education (3 Credits)**

A survey of the contribution of economics to educational issues, including the value of educational investments, effect of education on economic growth, input-output analysis, and economics of educational finance.

**ECON 880 - Public Finance I (3 Credits)**

A general survey of public finance, including public expenditures; the structure, incidence, and effects of taxes; public goods; and fiscal federalism.

**ECON 882 - Public Finance II (3 Credits)**

An analysis of budgets and budget policy; tax incidence and effects; debt and debt management.

**ECON 885 - Urban Economics (3 Credits)**

An analysis of economic forces affecting urbanization and the economic processes influencing urban form and structure. Spatial concepts are considered in addition to the traditional microeconomic and macroeconomic concepts.

**ECON 886 - Location Theory (3 Credits)**

Spatial and economic structures of regions and regional economic development. Topical review of partial and general equilibrium models of land use, regional economic growth; income determination at a regional level (regional accounts and input-output models); regional policy alternatives and their efficiency.

**ECON 891 - Sampling Techniques (3 Credits)**

Statistical designs and techniques for survey investigations. Mathematical development of sampling systems; sampling units; sample size; estimation; costs; non-sampling problems. Methods of obtaining and reporting information.

**Prerequisites:** ECON 692 or equivalent.

**ECON 892 - Third-Year Seminar 1 (2 Credits)**

Research methods in Economics. The design and execution of a research paper in Economics. Preparation for writing a dissertation in Economics.

**ECON 893 - Third-Year Seminar 2 (1 Credit)**

Research methods in Economics. The design and execution of a research paper in Economics. Preparation for writing a dissertation in Economics.

**ECON 894 - Advanced Topics in Management Science (3 Credits)**

Topics will be selected from: nonlinear programming, stochastic programming, integer programming, spectral analysis, decision theory, Markov processes, Box-Jenkins methods.

**ECON 895 - Econometrics and Regression II (3 Credits)**

Topics in generalized least squares, autocorrelation, distributed lag models, principal components, identification, and simultaneous estimating techniques.

**Prerequisites:** ECON 795.

**ECON 898 - Special Topics in Economics (3 Credits)**

Selected readings, research and trends in economics. May be repeated up to three times as content varies by title.

**ECON 899 - Dissertation Preparation (1-12 Credits)**