

# ECONOMICS (ECON)

## **ECON 1501 Economics in Action 3 s.h.**

An introduction to the United States' economic system and institutions through the examination of current economic problems. Not applicable for a major or minor in economics. Credit will not be given for 1501 if a student has already received credit for ECON 2610 or its equivalent.

**Gen Ed:** Social Science.

## **ECON 1503 Rich and Poor: Diversity and Disparity in the United States Workplace 3 s.h.**

Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

## **ECON 1503C CE Rich and Poor 3 s.h.**

Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

## **ECON 1503H Honors Rich and Poor: Diversity and Disparity in the U.S. Workplace 3 s.h.**

S. Workplace. Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

**Gen Ed:** Domestic Diversity, Social Science, Social and Personal Awareness.

## **ECON 1505 Personal Financial Literacy 3 s.h.**

An introduction to personal financial planning. Topics covered include budgeting, the use of credit, taxes, savings accounts, investment strategies, insurance, buying a home, career planning, and retirement planning. Students will gain the knowledge and resources to be better prepared for their financial future.

**Gen Ed:** Social Science, Social and Personal Awareness.

## **ECON 2610 Principles 1: Microeconomics 3 s.h.**

Introduction to the theory of markets, including the behavior of consumers and the conduct of private and public business enterprise. Effects of monopoly and competition on private and social welfare. The role of government in promoting the economic welfare of consumers, workers, and minorities.

**Gen Ed:** Social Science.

## **ECON 2610H Honors Principles 1: Microeconomics 3 s.h.**

Introduction to the theory of markets, including the behavior of consumers and the conduct of private and public business enterprise. Effects of monopoly and competition on private and social welfare. The role of government in promoting the economic welfare of consumers, workers, and minorities.

**Gen Ed:** Social Science.

## **ECON 2630 Principles 2: Macroeconomics 3 s.h.**

Studies of growth, inflation, and unemployment at the national level and the performance of the U.S. economy in the global setting. The impacts of national economic policies on individual and social welfare. An extensive discussion and evaluation of the U.S. banking system and its effects on individuals and businesses.

**Prereq.:** ECON 2610.

**Gen Ed:** Social Science.

## **ECON 2630H Honors Principles 2: Macroeconomics 3 s.h.**

Studies of growth, inflation, and unemployment at the national level and the performance of the U.S. economy in the global setting. The impacts of national economic policies on individual and social welfare. An extensive discussion and evaluation of the U.S. banking system and its effects on individuals and businesses.

**Prereq.:** ECON 2610 or ECON 2610H.

**Gen Ed:** Social Science.

## **ECON 2631 Introductory Macroeconomics for Education Majors 3 s.h.**

Measurement of the national economy's performance (growth, inflation, and unemployment), the banking system, the impact of government on macroeconomic performance, and international macroeconomics. Principles of personal finance, including budgeting, the use of credit, and financial planning are also discussed. Open only to education majors. Credit will not be given for both ECON 2630 and ECON 2631.

**Prereq.:** ECON 2610.

## **ECON 3701 Money and Banking 3 s.h.**

Organization and operation of commercial banking in the United States; central banking under the Federal Reserve System; basic theory. Monetary policy as a determinant of national income.

**Prereq.:** ECON 2630.

## **ECON 3702 Public Finance & Political Economy 3 s.h.**

This course in public finance and political economy offers an overview of how governments allocate and manage resources to promote economic growth and social welfare. Students will learn about the various tools used by governments to raise revenue and allocate resources, such as taxes, subsidies, public spending, and debt financing. The course also explores the various market failures that can arise due to externalities, information asymmetries, and public goods, and how governments can intervene to correct them. Additionally, the course delves into the political economy of public finance, analyzing the trade-offs between political and economic objectives, such as efficiency, equity, and political stability.

**Prereq.:** ECON 2610.

## **ECON 3703 Behavioral Economics 3 s.h.**

Uses insights from economics and psychology to explain why normally rational people make poor choices in their lives, be it in terms of money, health, education or long-term happiness. This introductory course explores the sources of poor economic choices and examines ways to improve them.

**Prereq.:** None.

## **ECON 3705 Climate Change and Environmental Economics 3 s.h.**

Application of economic theory to environmental problems, analysis of policy alternatives for pollution abatement, and the conservation of exhaustible resources, with an emphasis on the economic consequences of and potential policies used to address climate change. Determination of efficient management of local and national pollution levels, including air, water, and toxic substances.

**Prereq.:** ECON 1501 or ECON 2610.

## **ECON 3710 Intermediate Microeconomic Theory 3 s.h.**

This course provides comprehensive coverage of microeconomic issues by analyzing applications of the theory. The primary objectives are to think analytically about the forces at work in the choices of individuals and firms and to study the allocation of our limited resources in the economy to determine whether it is optimal for society.

**Prereq.:** ECON 2610.

## **ECON 3712 Intermediate Macroeconomic Theory 3 s.h.**

The construction of national income and production accounts and the basic determinant of income, output, and employment. Determination of the level of employment, interest, and money through the classical versus Keynesian aggregate economics.

**Prereq.:** ECON 2630 (C or better).

**ECON 3720 Capitalism versus Socialism 3 s.h.**

An examination of the recent world-wide trend toward free market economy, giving particular attention to basic processes such as resource allocation and product distribution. Frequent references are made to the failure of Socialism in the USSR and the new approach in Russia, Eastern Europe and China toward market economies.

**Prereq.:** None.

**ECON 3730 Advanced Excel and Business Analytics Tools 3 s.h.**

This course introduces students to essential tools and techniques used in business analytics. It covers advanced spreadsheet functionalities, data workflow design, Microsoft Power Query, and foundational concepts in databases, tailored for a general audience.

**Prereq.:** BUS 3700 AND 2.5 GPA.

**Cross-Listed:** BUS 3730.

**ECON 3735 Artificial Intelligence in Business 3 s.h.**

In this course students will embark on an immersive, project-based exploration of the transformative impact of generative AI across various business sectors and the economy. From automating customer service to innovating marketing strategies, simulating design processes, and analyzing case studies, students will work hands-on with cutting-edge AI tools to solve real-world challenges. Through a series of tailored projects, the course aims to equip students with the foundational AI skills and ethical considerations essential for leveraging artificial intelligence as a strategic asset in today's fast-paced digital economy.

**Prereq.:** Junior Standing AND 2.5 GPA.

**Cross-Listed:** BUS 3735.

**ECON 3740 Sports Economics 3 s.h.**

Economic analysis of individual, team, and league sports. This course focuses not only on the market structure and industrial organization of sports leagues, but also addresses the public finance issues of municipal stadium construction and the labor issues involved with free agency and salary caps.

**Prereq.:** ECON 2610.

**ECON 3788 Advanced Business Analytics 3 s.h.**

This course explores advanced concepts in business analytics with a focus on business application of machine learning techniques. Students will learn to develop and apply predictive models for real-world business and economic challenges, leveraging data analytics tools and machine learning algorithms.

**Prereq.:** BUS 3700.

**ECON 3789 Statistics for Business and Economics 2 3 s.h.**

This course builds on concepts introduced in ECON 3788. Specific topics include hypothesis testing, regression analysis, ANOVA and time series analysis. Practical application of statistical procedures is incorporated into regularly scheduled computer workshops. Credit will not be given for ECON 3789 if a student has already received credit for ECON 3790 or its equivalent. 3 s.h.

**Prereq.:** ECON 3788.

**ECON 4810 Managerial Economics 3 s.h.**

An application of economic analysis to business problems. Emphasis upon executive decisions for the allocation of resources.

**Prereq.:** ECON 2610.

**ECON 4855 Health Economics 3 s.h.**

Application of basic principles to the study of the health care industry. Topics include the supply and demand of medical care, the effects of private and public insurance on the health care industry, trends in health care costs, public policies to equalize access to medical care and the dilemma caused by the improvement in life-sustaining technology.

**Prereq.:** ECON 2610.

**ECON 4860 Selected Topics in Economics 3 s.h.**

Advanced study of selected topics in economic analysis and issues in economic policy. May be repeated once with different topic.

**Prereq.:** ECON 2610 and ECON 2630.

**ECON 4860G ST Advanced Bus Analytics 3 s.h.**

This course explores advanced concepts in business analytics with a focus on business application of machine learning techniques. Students will learn to develop and apply predictive models for real-world business and economic challenges, leveraging data analytics tools and machine learning algorithms.

**Prereq.:** ECON 2610 and ECON 2630.

**ECON 4870 Economics Internship 3 s.h.**

The practical application of economic knowledge and statistical skills in the workplace. Students assist professionals in various kinds of industrial, financial, and public service organizations.

**Prereq.:** Junior standing, 2.5 overall GPA, AND Special Approval of Director OR Special Approval of Director.

**ECON 4871 Economics Internship 2 3 s.h.**

The practical application of economic knowledge and statistical skills in the workplace. Students assist professionals in various kinds of industrial, financial, and public service organizations.

**Prereq.:** ECON 4870 (B or better), Junior standing, 2.5 GPA, AND Special Approval of Director OR Special Approval of Director.

**ECON 4880 Business Analytics of Economic Issues 3 s.h.**

This capstone course offers students a comprehensive project in economics and business analytics. It integrates the application of data techniques, visualization, predictive analytics with an emphasis on model interpretability, and prescriptive analytics to address real-world economic or business issues.

**Prereq.:** ECON 3710, ECON 3712, ECON 3788 and BUS 3700.

**Gen Ed:** Capstone.

**ECON 4898 Graduate Study in Selected Economic Topics 3 s.h.**

For undergraduates taking courses in the MA in Economics program for credit towards an undergraduate degree. Credit earned cannot be later applied to a graduate degree. The student must meet the criteria for undergraduate students taking graduate coursework listed in the Graduate Bulletin. May be repeated with different graduate courses.

**Prereq.:** A minimum of 20 hours of coursework in economics at the 2600 level and above, permission of the chair, junior standing.

**ECON 4899 Individual Study in Economics 1-4 s.h.**

Individual study of a topic, area, or problem requiring in-depth reading, and a written project.

**Prereq.:** Junior or senior standing AND Special Approval.

**ECON 5801 Economics of Industrial Organization 3 s.h.**

A systematic analysis of the structure, conduct, and performance of American industry. A quantitative analysis plus a comprehensive review of theoretical models of the market, firm behavior, and performance.

**Prereq.:** ECON 2610.

**ECON 5806 History of Economic Thought 3 s.h.**

Designed to provide students with an understanding of the development of economic ideas to include: Mercantilism, Physiocrats, the English Classical School, Utilitarianism, early Social Thought, Karl Marx, the German Historical School, Institutionalists and the Keynesian School.

**Prereq.:** ECON 2630.

**ECON 5811 International Trade 3 s.h.**

Theories of international trade and specialization; free trade vs. protectionism; tariff and non-tariff barriers to international trade; international balance of payments and its components; the role of multinational enterprises in contemporary trade pattern; regional economic integrations and world trade; U.S. commercial policies.

**Prereq.:** ECON 2610.

**ECON 5812 International Finance 3 s.h.**

Theories of foreign exchange and capital movements, international payments, analysis of spot and forward foreign exchange markets, foreign exchange market arbitrage, speculation, and risk hedging. The Bretton Woods agreement and the contemporary international monetary system. The rise of international organizations and multinational enterprises in the international economy.

**Prereq.:** ECON 2630.

**ECON 5822 Crime and Urban Economics 3 s.h.**

This course will draw upon economic models and theories and use the tools of economics to analyze problems of urban areas with an emphasis on the economics of crime, drugs, and incarceration. Topics include the causes of the growth or decline in cities, the theory of location, agglomeration, housing, segregation, suburbanization, and auto congestion.

**Prereq.:** ECON 2610.

**ECON 5824 Applied Time Series Analysis of Economic and Business Data 3 s.h.**

An in-depth analysis of time series models and their applications to problems in economics and business. Emphasis on forecasting. Extensive use of standard computer programs.

**Prereq.:** ECON 2610 and STAT 4817 or ECON 3790 or (ECON 3788 and ECON 3789) or (ECON 3788 and BUS 3700).

**ECON 5850 Introduction to Game Theory 3 s.h.**

Topics include (not limited to) Nash equilibrium, pure/mixed strategy, static/dynamic games, repeated games and coordination, perfect/incomplete information, etc.

**Prereq.:** ECON 2610.

**ECON 5861 SAS Programming for Data Analysis 3 s.h.**

An introduction to SAS programming for data analytics. Topics include using SAS for data processing, manipulation, visualization, reporting, and statistical analysis. The objective is for students to develop statistical computing skills for problem solving and decision making.

**Prereq.:** STAT 2601 or STAT 3717 or STAT 3743 or ECON 3790, or ECON 3788 and ECON 3789, or ECON 3788 and BUS 3700.

**Cross-Listed:** STAT 5811.

**ECON 6912 Microeconomic Theory 3 s.h.**

This course provides comprehensive coverage of microeconomic issues by analyzing applications of the theory. This includes study of demand and supply, theory of behavior of consumers and firms, choice under uncertainty, partial equilibrium analysis of various market structures, and Pareto efficiency. The course will focus on applications of the theory through current applied economic research peer reviewed articles.

**ECON 6915 Health Care Analytics 3 s.h.**

In this course we will learn skills necessary to analyze and interpret healthcare data to improve evidence-based decision-making, patient outcomes, and overall healthcare system performance. Topics include data management, exploratory data analysis (EDA), predictive modelling and model evaluation as it relates to various health care data. We also learn about the main issues that plague the healthcare markets in the US.

**ECON 6921 Economic Analysis of Markets and Industries 3 s.h.**

Participants will learn to analyze and understand the impact economic factors (e.g., information, consumer behavior, supply and demand) have on shaping markets and industries. Using this knowledge, participants will be capable of assessing the different types of economic strategies (e.g., product differentiation, pricing, advertising and signaling) an organization can employ to gain market power to realize economic profits.

**Prereq.:** Graduate standing.

**ECON 6922 Macroeconomic Theory 3 s.h.**

Examines models used to determine the value of various aggregate economic variables, such as the price level, national income, employment, interest rates, and wage rates.

**ECON 6939 The Economics of Financial Markets and Institutions 3 s.h.**

Study of the institutions, instruments, and markets that facilitate the distribution of financial resources throughout the economy. The course discusses the money, capital, and commodity markets. Also, the topics of accessing default risk and hedging against market risk are discussed.

**ECON 6940 Financial Economics 3 s.h.**

Study of various topics, including risk and the selection of the optimal monetary control tool, politics and monetary control, the financial firm as an optimizing institution, and portfolio theory.

**Prereq.:** ECON 6939 or permission of the instructor.

**ECON 6945 Public Finance 3 s.h.**

Study of the role of the government in the economy. The topics covered will include expenditure analysis, theories of taxation, provision of public goods, fiscal federalism, and public choice theory.

**Prereq.:** ECON 6912.

**ECON 6952 Transfer Programs and Poverty 3 s.h.**

A study of poverty and the effectiveness of antipoverty programs. Topics include defining and measuring poverty, trends in the rate of poverty and the distribution of income, causes of poverty, models of discrimination, effectiveness of government training programs, transfer programs and their effect on labor supply, and the financial stability of the Social Security retirement program.

**Prereq.:** admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

**ECON 6970 Economics Internship 3 s.h.**

The practical application of economic knowledge and statistical skills in the workplace. Students assist participating professionals in various kinds of industrial, financial, and public service organizations.

**Prereq.:** ECON 6912 and ECON 6922, Special Approval of Director.

**ECON 6976 Econometrics 3 s.h.**

Study of the fundamentals of econometric techniques that are useful for estimating causal economic relationships. The objectives include (1) analysis of the effects of exogenous factors on the variable whose behavior we seek to explain, (2) testing of hypotheses about new and existing economic theories, and (3) forecasting estimated economic relationships beyond the sample period for the purpose of planning and control. The course will focus on the practice of econometrics with extensive applications to a variety of real-world problems in many areas of economics.

**ECON 6980 Applied Time Series Analysis and Forecasting 3 s.h.**

Covers essential tools for time series analysis and forecasting with emphasis on how to apply those tools to analyze and forecast economic and business data. Topics include ARMA models, Time Series Decomposition, Exponential Smoothing, GARCH, VAR models, and Cointegration.

**Prereq.:** ECON 2610 and ECON 3789 or ECON 3790 or ECON 6976 or STAT 5817.

**ECON 6988 Modeling in Financial Economics 3 s.h.**

A study of modeling and evaluation of derivatives and bonds and risk management using derivatives. Topics cover various models in asset evaluation, such as bond price models, the Black-Scholes model, diffusion processes, and risk management. Also listed as STAT 6988.

**Prereq.:** STAT 4843 or STAT 6943 or ECON 6976.

**ECON 6990 Special Topics in Economics 1-3 s.h.**

Special interest topics selected by the staff in the following areas: economic education, economic theory, and applied economics analysis. May be repeated for a maximum of six hours toward a graduate degree.

**ECON 6992 Data Analytics - Advanced SAS Programming 3 s.h.**

This course is designed to provide students training of advanced SAS programming for data analysis. Main topics include SQL, Macro language, Econometrics-related procedures, working with large data set, etc.

**Prereq.:** ECON 6976 or equivalent and either ECON 5861 or STAT 5811.

**Cross-Listed:** STAT 6912.

**ECON 6998 Research Seminar 3 s.h.**

Applied quantitative research techniques will be discussed. Students are required to undertake an original quantitative research project in a field of economics and write a paper summarizing their results. Course may be taken concurrently with ECON 6976. **Prereq.:** ECON 6912 and ECON 6922.

**ECON 6999 Master's Thesis 3 s.h.**

A research project under the supervision of a member of the department on the graduate faculty. The project typically extends the student's research in ECON 6998.

**Prereq.:** a grade of "A" or "B" in ECON 6998 and a thesis proposal accepted by departmental committee.