

ECONOMICS (ECON)

ECON 1104 - Economics of Gender (3 credits)

Economic approach to the causes and consequences of male/female gender differences in economic outcomes. Tools in microeconomic analysis and empirical work. Woman, family choices and labor markets. Gender gap in earnings. Employment and wage policies related to women.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 7 Identity & Equity in U.S., 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 1204 - Economics of Race (3 credits)

Causes and consequences of racial disparities in economic outcomes including education, health, housing, entrepreneurship, and earnings. Tools in microeconomics and statistics as applied to the study of racial issues. Historical and institutional contexts of racial problems. Change in racial gaps across generations. Impact of public policies to address racial discrimination in labor markets. Does not count toward ECON major.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 7 Identity & Equity in U.S., 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 1214 - Economic History of Diversity and Inclusion (3 credits)

Economic analysis of topics concerning diversity and inclusion. Emphasis on Virginia and surrounding states. Introduction to the basic principles of economic analysis and economic history, with a special emphasis on models of institutional change, economic growth, discrimination, inequality, migration, and indigenous economic systems. Impact of institutions, environment, and technological change on labor markets, asset markets, and standard of living. Consideration of the role of data in understanding diversity and related ethical issues.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 7 Identity & Equity in U.S., 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: PPE 1214

ECON 2005 - Principles of Economics (3 credits)

2005: Introduction to microeconomics. The economic approach to decision-making. Model of supply and demand. Elasticities. Consumer behavior. Firm behavior under varying industry structures. Sources and consequences of market failure. Costs and benefits of international trade. The role of government in the economy. Economic, ethical, and social ramifications of issues such as pollution, missing information, and income inequality. 2006: Introduction to macroeconomics. The measurement of economic activity. Macroeconomic problems (such as unemployment and inflation). The monetary system. Effects and limitations of monetary and fiscal policies. International economics. Social and ethical issues related to macroeconomic policy.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 2006 - Principles of Economics (3 credits)

2005: Introduction to microeconomics. The economic approach to decision-making. Model of supply and demand. Elasticities. Consumer behavior. Firm behavior under varying industry structures. Sources and consequences of market failure. Costs and benefits of international trade. The role of government in the economy. Economic, ethical, and social ramifications of issues such as pollution, missing information, and income inequality. 2006: Introduction to macroeconomics. The measurement of economic activity. Macroeconomic problems (such as unemployment and inflation). The monetary system. Effects and limitations of monetary and fiscal policies. International economics. Social and ethical issues related to macroeconomic policy.

Prerequisite(s): ECON 2005

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 2025H - Honors Principles of Economics (3 credits)

2025H: Microeconomics. Consumer behavior and demand, firm behavior and supply, price determination and market equilibrium under varying industry structure. Applications to labor and financial markets. 2026H: Macroeconomics. Measuring aggregate economic activity, macroeconomic problems (such as unemployment and inflation), the monetary system, effects and limitations of monetary and fiscal policies.

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 2026H - Honors Principles of Economics (3 credits)

2025H: Microeconomics. Consumer behavior and demand, firm behavior and supply, price determination and market equilibrium under varying industry structure. Applications to labor and financial markets. 2026H: Macroeconomics. Measuring aggregate economic activity, macroeconomic problems (such as unemployment and inflation), the monetary systems, effects and limitations of monetary and fiscal policies.

Prerequisite(s): ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 2974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 2974H - Independent Study (1-19 credits)

Honors section.

Instructional Contact Hours: Variable credit course

ECON 2984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 2994 - Undergraduate Research (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 2994H - Undergraduate Research (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 3004 - Contemporary Economic Issues (3 credits)

The economic analysis of current issues and problems. This course may be repeated with different topic.

Prerequisite(s): ECON 2006 or ECON 2115 or ECON 2125 or ECON 2026H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3024 - Economic Justice (3 credits)

This course explores how different assumptions regarding the basis of claims for access to economic resources lead to different outcomes. Students will explore a variety of theories and examine their own beliefs about economic justice.

Prerequisite(s): (ECON 2005 or ECON 2025H) and (ECON 2006 or ECON 2026H)

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: PPE 3024

ECON 3034 - Economics of Poverty and Discrimination (3 credits)

Poverty and inequality in the United States and around the world. Sources of poverty. Antipoverty policies. Definition, empirical evidence, and causes of discrimination. Emphasis on ethical human behavior and policy analysis.

Prerequisite(s): ECON 2005

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 7 Identity & Equity in U.S., 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3054 - Introduction to Forecasting (3 credits)

Provides an introduction to data-driven forecasting, with applications in economics and in other disciplines - e.g., political science and climatology. Specification, estimation, and validation of time-series regression models; ethical issues arising in model specification and estimation. Forecasting theory and evaluation.

Prerequisite(s): STAT 3005 or BIT 2405

Pathway Concept Area(s): 5A Quant & Comp Think Adv., 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3104 - Microeconomic Theory (3 credits)

Theories of demand, production, perfectly and imperfectly competitive price determination, and general market equilibrium. Analytic applications.

Prerequisite(s): ECON 2005 and (MATH 1225 and MATH 1226) or ECON 2005 and (MATH 1025 and MATH 1026)

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3134 - Choice and Behavior (3 credits)

Theories of rational choice, utility, and revealed preference. Intertemporal decision problems and choice under uncertainty with applications to insurance and investments. Behavioral regularities and evidence of violations of rational choice theory. Behavioral models that accommodate this behavior. Applications of behavioral models to economic problems, ethical questions, policy, and organization design.

Prerequisite(s): ECON 2005 and (ECON 2006 or BDS 2006)

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: BDS 3134

ECON 3144 - Economics of Regulation (3 credits)

Economics of regulation with a focus on U.S. laws and institutions. Market structures, mergers, antitrust laws, and anticompetitive behavior, including collusion and monopolization. Economic regulation of price, entry, and output. Incentive regulation and alternatives to regulation. Valuing life and other nonmonetary benefits. Regulation of health, safety, and the environment.

Prerequisite(s): ECON 2006

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3154 - Managerial Economics (3 credits)

Applications of economic concepts and models to practical issues. Demand analysis, the law of demand, and different approaches to analyzing consumer behavior (elasticity, consumer surplus, and utility theory). Supply analysis, producer behavior, and theories of firms (diminishing returns, price takers and price searchers). Pricing strategies including segmentation, two-part tariffs, collusion, and predatory pricing. Market imperfections and extensions including signaling, adverse selection, network externalities, and the economics of time. Empirical analysis: formulating economic questions, finding and analyzing relevant data, and presenting findings to non-specialists.

Prerequisite(s): ECON 2006 or BDS 2006

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3204 - Macroeconomic Theory (3 credits)

Theories of the determination of the level of aggregate economy-wide activity. Employment, the price level, aggregate national income, and the interest rate. The roles of money and expectations.

Prerequisite(s): (ECON 2006 or ECON 2026H) and (ECON 3104 or ECON 2025H) and (MATH 1226 or MATH 1526 or MATH 1026)

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3214 - Money and Banking (3 credits)

Money and credit. The U.S. monetary system. Monetary theory, monetary policy and economic stabilization.

Prerequisite(s): (ECON 2005 or ECON 2025H) and ECON 2006

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3254 - Analysis of Economic Data (3 credits)

Sources of economic data. Application of spreadsheet and/or statistical software to analysis of economic relationships using graphical and regression techniques. Emphasis is on economic applications rather than statistical theory.

Prerequisite(s): STAT 3005 or STAT 3604 or STAT 3615 or STAT 4604 or STAT 4705 or STAT 4714 or CMDA 2006 or BIT 2406

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3314 - Middle East Economics (3 credits)

Introduction to the economies of the Middle East and North Africa. Application of economic analysis to economic history and modern economic growth of the region. Historical role of a strong state and Islam in shaping the institutions of private property in Middle Eastern societies. The market for oil and the integration of the region into the global economy. The modern economy of the Middle East with focus on human capital development, inequality, and the role of women.

Prerequisite(s): ECON 2006

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 3884 - Topics in Philosophy, Politics, and Economics (3 credits)

Topics-based course in philosophy, politics, and economics (PPE). Discussion of important topics and thinkers in PPE with historical and practical relevance. Focus on interdisciplinary analysis and methods. Topics include: limits of markets; well-being theory, science, and policy; socioeconomic justice; economic and political institutions; and global poverty. May be repeated 1 time with different content for a maximum of six credits hours. Pre: 3 credit hours in PPE, PHIL, PSCI, or ECON.

Pathway Concept Area(s): 2 Critical Thinking Humanities, 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

Repeatability: up to 6 credit hours

Course Crosslist: PHIL 3884, PPE 3884, PSCI 3884

ECON 3914 - European Economics (3 credits)

Microeconomics, macroeconomics and economic policies of the European Union. EU economic law, institutions, decision-making, and budgeting. Historic and current influences on regional economic development. Monetary and fiscal policies. Economic research methods, analysis, and reporting.

Prerequisite(s): ECON 2006

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: IS 3914, PSCI 3914

ECON 3954 - Study Abroad (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 4014 - Environmental Economics (3 credits)

Economic dimensions and aspects of programs designed to impose quality controls upon the environment. Special emphasis on problems of controlling air and water pollution.

Prerequisite(s): ECON 2005 or ECON 2116 or ECON 2126 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4044 - Public Economics (3 credits)

Economic rationale of the public sector. Proper size and functions of government. Market failure, Cost-benefit analysis, public goods provision. Pricing of public enterprise services.

Prerequisite(s): ECON 3104 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4054 - Public Finance (3 credits)

The structure and incidence of taxation in the U.S. Effects of taxes on incentives and economic efficiency. Tax Policy.

Prerequisite(s): ECON 3104 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4074 - Labor Economics (3 credits)

Human capital theory, labor supply and demand, discrimination, effects of labor unions and collective bargaining, wage differentials, income distribution.

Prerequisite(s): (ECON 2005 or ECON 2116 or ECON 2126 or ECON 2025H) and ECON 3254

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4084 - Industry Structure (3 credits)

The structure and performance of American industry. Dimensions and measures of market structure. Factors affecting market structure. The relationship between structure and performance. Purpose and effects of antitrust policy, regulation, and other public policies toward industry.

Prerequisite(s): ECON 3104 or ECON 4924

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4124 - Growth and Development (3 credits)

Theories of economic growth. Policies to foster growth, and their consequences.

Prerequisite(s): ECON 2006 and (ECON 2025H or ECON 3104)

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4135 - International Economics (3 credits)

4135 International Trade: Factor mobility and commercial policy (tariffs, quotas, export licensing). 4136 International Finance: Liquidity, exchange rates, comparative international living standards, foreign aid.

Prerequisite(s): ECON 3104 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: AAEC 4135

ECON 4136 - International Economics (3 credits)

4135 International Trade: Factor mobility and commercial policy (tariffs, quotas, export licensing). 4136 International Finance: Liquidity, exchange rates, comparative international living standards, foreign aid.

Prerequisite(s): ECON 3204 or ECON 4204H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4144 - Economics of China (3 credits)

Evolution of the Chinese economy since 1949. Exposition of alternative economic systems, the commune, incentive problems, and state owned enterprises. Analysis of recent reforms and their effects on economic efficiency; and key issues of economic transition related to Russia and other East European countries.

Prerequisite(s): ECON 3104 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4214 - Economics of Health Care (3 credits)

Effects of medical care on health; cost and production of medical care; demand for medical care and its financing; structure of the health care industry; reorganization for efficiency.

Prerequisite(s): ECON 2005 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4304 - Introduction to Econometric Methods (3 credits)

An introduction to econometric modeling techniques, including regression methods. Particular emphasis on the special problems posed by economic data.

Prerequisite(s): ECON 3254 or STAT 3005 or STAT 4604 or STAT 4705 or STAT 4714 or CMDA 2006

Corequisite(s): ECON 3104, ECON 3204

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4314 - Big Data Economics (3 credits)

Applied econometrics dealing with big data. Theoretical, computational, and statistical underpinnings of big data analysis. The use of econometric models and deep machine learning algorithms to analyze the high-dimensional data sets. Implications in research focusing on economic questions that arise from rapid changes in data availability and computational technology. Materials are hands-on tutorials that come with Python codes and real-world data sets.

Prerequisite(s): ECON 3254 or ECON 4304 or CMDA 3654 or STAT 3006

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: CMDA 4314

ECON 4404 - Economics of Organizations (3 credits)

Economic theories of organization, with specific attention to their internal structure, and to design of incentive systems. Application to mergers, to the relationship between stockholders and managers, etc. Students with one year of economics, calculus and major in some other social science, by permission of the instructor.

Prerequisite(s): ECON 3104 or ECON 4924 or ECON 2025H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4424 - The Theory of Games and Economic Behavior (3 credits)

Introduction to games and solution concepts, such as prisoners dilemma, noncooperative equilibrium and Nashs bargaining solution. These concepts are applied in analyzing economic problems including bargaining problems, oligopoly and agency.

Prerequisite(s): ECON 3104 or ECON 4104H

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4434 - Experimental Economics (3 credits)

This is a course in the use of laboratory methods to study behavior in economics and the social sciences. Students will study state-of-the-art methodology in experimental economics, including experimental design, laboratory technique, financial incentives, and analysis of data. Students will participate in, design, and conduct experiments in bargaining, auctions, asset markets, public goods and commons situations, and risky decision-making.

Prerequisite(s): (ECON 3104 or ECON 2025H) and (BIT 2406 or MSCI 2406 or STAT 2004 or STAT 3005)

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4454 - Neuroeconomics (3 credits)

Neural processes related to reward, learning, reflection, delay of gratification, and social interaction. Clinical uses of neuroeconomics research techniques. Implications of neuroeconomics in economics, policy, law and business.

Prerequisite(s): NEUR 2026 or ECON 3104

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: NEUR 4454, PSYC 4454

ECON 4514 - Applied Analysis of Banking and Financial Markets (3 credits)

Analysis of economic data with focus on understanding of decision-making in financial markets. Behavior of and optimal outcomes for individuals (consumption, savings, and investment), financial institutions (lending, borrowing, and risk management), regulators, and policy makers. Statistical tools and inference using recent data sets.

Prerequisite(s): ECON 3254 or ECON 4304

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4614 - R Programming in Economics (3 credits)

Using R to combine economic theory and data. Focus on general R programming fundamentals related to data science techniques and economic data (gathering, standardizing and cleaning, analysis, and visualization). Hands-on experience with a variety of data, data sources, and techniques within R. Flaws and limitations of data. Direct application with individual project combining economic theory and data using R.

Prerequisite(s): ECON 2005 and (ECON 3254 or ECON 4304)

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4754 - Internship (1-3 credits)

Qualified students are placed in an industry or government position under the combined supervision of a faculty member and a responsible supervisor in the employing agency. Satisfactory evaluation from employer, detailed reports on the internship experience and a specific project will be required of each intern. Pre: Junior standing, QCA of 2.50 or better and consent.

Prerequisite(s): ECON 2005

Instructional Contact Hours: (1-3 Lec, 1-3 Crd)

Repeatability: up to 3 credit hours

ECON 4864 - Developing Behavioral Science Policies and Interventions (3 credits)

Senior-level capstone course to apply theories and models from behavioral decision science to real world problems on topics from education, organizations, health, crime, environment, and volunteerism. Utilize behavioral science theories, data and analytical frameworks from research papers to define and analyze problems or unintended consequences resulting from individual decision-making. Emphasis on identifying specific problems, formulating behavioral policies or interventions to improve performance, and designing experiments and randomized controlled trials to test their effectiveness.

Prerequisite(s): BDS 3134 or ECON 3134

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: BDS 4864

ECON 4894 - Law and Economics (3 credits)

Analysis of the economic effects of legal rules, with emphasis on the law of property, contract, liability, and land use.

Prerequisite(s): ECON 2005

Instructional Contact Hours: (3 Lec, 3 Crd)

ECON 4964 - Field Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 4974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 4974H - Independent Study (1-19 credits)

Honors section.

Instructional Contact Hours: Variable credit course

ECON 4984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 4994 - Undergraduate Research (1-19 credits)

Instructional Contact Hours: Variable credit course

ECON 4994H - Undergraduate Research (1-19 credits)

Honors section.

Instructional Contact Hours: Variable credit course