

# Requirements: Economics

## *Social Sciences Division*

Personal fulfillment and effective citizenship require some understanding of the principles of human interaction in society. Economics is the scientific study of choosing how best to use technology and limited resources to maximize individual or social welfare. Through its analysis of behavior, economics can add much to our understanding of vital public-policy issues. A grasp of the principles of economics enables students to analyze problems such as unemployment, economic growth, pollution, inflation, monopoly power, race and gender discrimination, and international trade.

Economics can also be defined by its methods of analysis. In seeking to understand and predict social behavior, economists build, test and revise models. Economics students learn to work with models of the behavior of consumers, producers, suppliers of labor and capital, and government. They study the markets in which these economic agents interact. This technique for understanding the experience of men and women in society differs sharply from the literary and intuitive methods of the humanities and fine arts.

Economics is a highly integrated discipline in which most economists work simultaneously with theory, analytical models, data, quantitative research methods and public-policy issues. Each economics course at Kenyon introduces all of these elements, in varying mixes. The common thread among the courses is reliance on models that explain and predict human behavior. Economics courses at Kenyon are designed to help students develop the ability to think in a rigorous, analytical fashion and to develop communication skills. This emphasis places economics at the heart of liberal arts education.

## New Students

ECON 101 and 102 are the complementary set of foundation courses in economics. Both are lecture and discussion courses. The introductory courses survey theories of producer and consumer behavior and show how these theories can be used to predict the consequences of individual, business and government actions. Current public-policy issues are also studied. Different instructors teach sections of these courses using different teaching styles. All sections, however, feature several examinations each semester, and in most sections there are also homework assignments or quizzes. In addition to a major text, most sections also introduce readings about current issues. These courses are an excellent introduction to economics for those who plan no further work in the discipline, but they also are the foundation and prerequisite for all upper-level courses and the first courses in the economics major.

Even though ECON 101 and 102 are challenging introductory courses, most first-year students who take these courses perform well. Those students who are most successful in the principles courses have a strong general preparation for college, reasonably good study habits, and academic motivation to keep up with reading and homework assignments every week.

There are significant advantages in taking ECON 101 and 102 as a first-year student. The courses prepare one to take virtually any other economics course starting in the sophomore year. Students who are seriously considering an economics major often find this early start helpful.

Economics majors can participate in off-campus study in the junior year. However, those who plan to major in economics and study off campus should seriously consider enrolling in ECON 101 and 102 as first-year students and ECON 201 and 202 as sophomores to provide a sound base for off-campus study.

## Requirements for the Major

Successful completion of ECON 101 and ECON 102 with a grade of at least B- in each is a prerequisite for admission to the major program.

A minimum of 4.5 units within the department is required, including:

- ECON 201
- ECON 202
- an economics seminar
- ECON 205, which has a prerequisite of a college introductory statistics course

## Senior Capstone

The Senior Capstone involves a systematic effort to understand social behavior using economic principles. The capstone allows majors to gain an appreciation of the integrity of economics as a discipline. Students typically sit for the closed-book exam during the spring semester. Honors majors typically must answer an additional essay question. An honors oral examination is conducted by an outside examiner.

[Find out more about the Senior Capstone in economics.](#)

## Honors

The Honors Program in economics provides an opportunity for more independent research and study than is available in regular courses of study. Honors candidates must have completed ECON 201, 202 and 205 prior to their senior year. Students must also participate in the Honors seminar ECON 375 in the fall of their senior year. In the honors seminars, students present and discuss with their peers the results of their research. A minimum departmental GPA of 3.5 and a minimum cumulative GPA of 3.33 is required for honors. Those interested in the Honors Program should discuss this possibility with the department chair.

## Transfer Credit Policy

For those majors who spend a semester studying off-campus, the department will transfer no more than one (1) unit of credit in economics.

For those majors who spend two semesters studying off-campus, the department will transfer no more than two (2) units of credit in economics.

The Economics Department will award economics credit for no more than a half (0.5) unit for an accounting or finance course taken at another institution.

## Advanced Placement

Students with scores of 4 or higher on the Advanced Placement (AP) microeconomic and macroeconomic exams are given 0.25 units of credit, per exam, in economics.

## Courses in Economics

### *ECON 101 Principles of Microeconomics*

*Credit: 0.5 QR*

This course studies issues of economic choice, economic efficiency and social welfare. The course presents theories of consumer and producer behavior and shows how these theories can be used to predict the consequences of individual, business and government actions. Topics covered include opportunity cost; the gains from trade; supply and demand analysis; taxes; externalities; price controls; consumer choice; production and cost; product pricing and market structure. This course is required for economics majors. Offered every fall semester.

### *ECON 102 Principle of Macroeconomics*

*Credit: 0.5 QR*

This course studies national economic performance. Building upon the microeconomic theories of consumer and producer behavior developed in ECON 101, the course introduces models that focus on the questions of unemployment, inflation and growth. Topics covered include measurement of national income and inflation, macroeconomic models, saving and investment, money and banking, fiscal and monetary policy, and international trade and finance. This course is required for economics majors. Prerequisite: ECON 101. Offered every spring semester.

### *ECON 201 Microeconomic Theory*

*Credit: 0.5 QR*

This course is an intensive study of the fundamental logic of economic behavior primarily within the context of a market economy. The course develops a systematic analysis of consumer and producer behavior, linked together through the principles of exchange and market structure. The resulting explanation of product prices and factor rewards is used to evaluate and analyze economic efficiency and the distribution of welfare under alternative economic policies and conditions. This course is required for economics majors.

Prerequisite: a grade of B- or better in ECON 101 or a score of 4 or 5 on the Micro AP exam and ECON 102 or a score of 4 or 5 on the Macro AP exam. Offered every fall semester.

### *ECON 202 Macroeconomic Theory*

*Credit: 0.5 QR*

This course is a theoretical and applied study of the level of national income and employment. Prices, interest rates, unemployment rates, international trade relations, business cycles and the long-run growth of income significantly affect our standards of living. Diverse schools of macroeconomic thought are distinguished by theoretical concepts, priorities in performance goals, and empirical evidence. The course considers a variety of approaches and also emphasizes the microeconomic foundations of macroeconomic theory. Government actively manages both domestic and international aspects of the macroeconomy, and the course considers current public policy issues. This course is required for economics majors. Prerequisite: a grade of B- or better in ECON 102 or a score of 4 or 5 on the Macro AP exam and ECON 201. Offered every spring semester.

### *ECON 205 Introduction to Econometrics*

*Credit: 0.5 QR*

Econometrics is the application of statistical techniques to test economic models. This course offers an introduction to the theoretical and practical aspects of econometrics. Emphasis will be given to linear regression techniques, special problems associated with linear regression, and the interpretation of results. In short, economic explanations of behavior are quantified and hypotheses are tested with data using statistical techniques. Students will make extensive use of Stata — a statistical software package that is popular among economists — to create and modify data sets and obtain experience learning to apply appropriate econometric methods. This course is required for the major. Prerequisite: ECON 101, 102 and a college course in statistics or a score of 4 or 5 on the Statistics AP exam. Generally offered every semester.

### *ECON 331 Economics of Development*

*Credit: 0.5 QR*

Students examine the economic conditions and problems of developing economies, exploring alternative theories of economic development and strategies for achieving development goals. Specific topics include the meaning of development; historical and theoretical perspectives; income distribution; agriculture, population and human resources; industrialization, employment and technology; urbanization and migration; foreign trade, investment and aid; and government planning. Prerequisite: ECON 101 and 102. Generally offered every other year.

### *ECON 332 Urban and Regional Economics*

*Credit: 0.5 QR*

This course is focused on the economic determinants of metropolitan development and regional economic activity. We will develop a theoretical basis for the analysis of economic problems in an urban and regional context. Within this framework the course will examine contemporary urban and regional economic problems such as poverty, discrimination, transportation, sprawl, and regional growth and decline. The course will have an emphasis on empirical applications of the models studied. Overall, this course will consist of lectures, assessments, class discussions and required readings. Prerequisite: ECON 101 and 102. Generally offered every year.

### *ECON 335 Economics of Immigration*

*Credit: 0.5*

This course examines the impact of immigration on the U.S. economy, focusing on why people choose to come here and what impact they have on labor markets, product markets, income inequality, the nature of cities, and government budgets. The goals of the course are (1) to develop the analytical tools used by economists to understand the economic effects of immigration, (2) to examine the empirical evidence on these effects, and (3) to assess the political economy and potential economic and political consequences of U.S. immigration policy choices. The course also will examine the impact of emigration on the countries that people leave. Prerequisite: ECON 101 and 102. This course is rarely offered.

### *ECON 336 Environmental Economics*

*Credit: 0.5 QR*

This course uses economic analysis to better understand the nature of environmental issues such as pollution and the allocation of natural resources. The course also examines the economic rationale behind policies aimed at improving the quality of the environment and altering our use of natural resources. The relative strengths of alternative policies will be discussed using a series of case studies focusing on actual policies aimed at correcting environmental problems. Prerequisite: ECON 101. Generally offered every spring semester.

### *ECON 337 Portfolio Allocation and Asset Pricing*

*Credit: 0.5*

This course examines the optimal allocation of an individual's wealth among risky financial assets and the related question of the pricing of these risky assets. After a consideration of various measures of risk and return, modern portfolio theory is used to derive the capital asset pricing model. The empirical performance of the capital asset pricing model will be analyzed and alternative asset pricing models will be discussed. Throughout the course, equity shares will be used as a particular application. (The pricing of fixed income assets is left to ECON 343.) The remainder of the course is spent on derivative assets, most importantly futures and options. Time permitting, options will be treated in some detail, concluding with a discussion of the Black-Scholes option-pricing model. While completing assignments, students will make fairly heavy use of a spreadsheet program such as Excel. Prerequisite: ECON 101, 102 and a college course in statistics or a 4 or 5 on the Statistics AP exam. Generally offered every year.

### *ECON 338 International Trade*

*Credit: 0.5*

This course focuses on the basics of international trade — theories of international trade, the instruments of trade policies, their impact on welfare and employment, the movement of factories and economic integration. While emphasis is placed on developing and empirically testing theories, we also discuss major trade-related issues such as the economic effects of globalization, the role of the World Trade Organization, labor and

immigration issues, foreign direct investment and outsourcing. Prerequisite: ECON 101 and 102. Generally offered every other year.

*ECON 339 International Finance and Open-Economy Macroeconomics*  
*Credit: 0.5 QR*

This course examines the determination of national incomes, price levels, interest rates and exchange rates using open-economy macroeconomic models. The course begins with an intensive study of balance of payments accounting and the foreign exchange market, followed by a consideration of the law of one price, purchasing power parity and uncovered and covered interest parity. The second half of the course will be spent deriving several open-economy macroeconomic models and using these models to discuss important international financial policy issues. These discussions will highlight the interaction of domestic policymakers with important international financial institutions such as the International Monetary Fund, the World Bank and the Bank for International Settlements. Prerequisite: ECON 101 and 102. Generally offered every other year.

*ECON 342 Economics of Regulation*  
*Credit: 0.5 QR*

This course will examine government regulation of the behavior of individuals, firms, industries and markets. The first half of the course will focus on the economic regulation (and deregulation) of industries and occupations. Examples of government-imposed restrictions on prices, quantities and the freedom to enter and exit industries and occupations will be drawn from medical services, funeral services and entertainment industries. The second half of the course will focus on various types of social regulations, focusing on health and safety regulations. Throughout the course, we will explore the economic rationales for the regulations and evaluate their effects upon economic efficiency. Prerequisite: ECON 101 and 102. Generally offered once every four years.

*ECON 343 Money and Financial Markets*  
*Credit: 0.5 QR*

This course examines U.S. money and financial markets and their interaction with and influence on prices, real output, employment and international trade. After an extensive discussion of fixed income pricing and the term structure, the class will consider the operations of financial institutions and the Federal Reserve System. The implementation of monetary policy and its effect on domestic and foreign financial markets, real output, and foreign trade also will be examined. In addition, alternative domestic and international monetary arrangements will be considered. While completing assignments, students will make fairly heavy use of a spreadsheet program such as Excel. Prerequisite: ECON 101 and 102. Generally offered every year.

*ECON 344 Labor Economics*  
*Credit: 0.5 QR*

This course provides an introduction to the economic analysis of labor markets. Topics include the determinants of labor demand and labor supply; the theory of compensating wage differentials; formation of human capital; discrimination in the workplace; public policy toward the workplace; and the determinants of earnings inequality. Prerequisite: ECON 101 and 102. Generally offered every other year.

### *ECON 345 Futures and Options*

*Credit: 0.5*

This course is an introduction to both the theoretical and practical aspects of the financial derivatives named futures and options. Markets for these instruments have grown rapidly over the past 40 years and are an important part of the global financial system. We begin with the study of market terminology and structure. We then turn to the pricing of forwards and futures. The majority of the course is spent on option pricing. We will use the binomial model to motivate a careful derivation and will discuss the Black-Scholes pricing equation. Throughout the course, we pay careful attention to the relationships among derivative prices, market participants, risk preferences and expectations for future realizations of the prices of underlying assets. Students will likely make extensive use of a spreadsheet program such as Excel. Prerequisite: ECON 101 and 102. Offered intermittently.

### *ECON 346 Industrial Organization*

*Credit: 0.5 QR*

This course provides an introduction to industrial organization, a field that focuses on how firms, interacting through markets, attempt to exploit opportunities for profit. We examine the standard models of perfect and imperfect competition, emphasizing the strategic behavior of the interacting firms. Topics include pricing models, strategic aspects of business practice, vertical integration and technological change. Prerequisite: ECON 101, 102 and 201. Generally offered every other year.

### *ECON 347 Economics of the Public Sector*

*Credit: 0.5 QR*

This course is a study of the public sector in the U.S. economy, featuring government provision of public goods, redistribution of income, and taxation. Students consider the theory that justifies government intervention in a market economy as well as the reasons for government's tendency to create economic inefficiencies. We will explore specific expenditure programs such as defense, health care, education, social insurance and welfare, as well as specific taxes. Prerequisite: ECON 101 and 102. Generally offered every other year.

### *ECON 355 Business Cycles*

*Credit: 0.5*

This course explores the patterns of change of the national economy, through business cycle expansions and recessions, and their effects on employment and income. Data on U.S.

and worldwide economies will be analyzed to identify regular behavior that characterizes a macroeconomic business cycle. Economic theories will be offered that specify different initial causes of the cycle, some of which are endogenous while others are outside influences such as government policy or technological change. Theories also suggest how the cause is able to generate the full cycle that affects the macro-economy. The Great Depression of the 1920's and 1930's will be considered as an extreme example. Recent and current cycles will be considered to understand their causes and characteristics. Prerequisite: ECON 101 and 102. Generally offered every other year.

### *ECON 357 Economics with Calculus*

*Credit: 0.5 QR*

This course introduces students to the tools of derivative and integral calculus used in microeconomics and macroeconomics. These tools include Lagrange multiplier methods for unconstrained and constrained optimization, Kuhn-Tucker conditions for nonlinear programming and Hamiltonian functions for problems of dynamic optimization. The course will emphasize the application of the tools of calculus rather than the underlying calculus theory. Therefore, students taking the course are expected to be familiar with derivative and integral calculus, as well as with the main principles of micro- and macroeconomics. Prerequisite: ECON 101, 102 and MATH 111, 112. Generally offered every other year.

### *ECON 358 The Federal Reserve System*

*Credit: 0.5 QR*

The Federal Reserve System is arguably the most important economic institution in the world. This course traces its origins and development. Specifically, we will explore the economic and institutional environment of the Fed's founding rationales for the Fed's governance structure how the Fed's mission has changed over time and the extent to which the Fed has achieved its stated goals. In doing so, we will also consider potential alternatives or improvements to the Fed and its current operating framework. Prerequisite: ECON 101 and 102.

### *ECON 359 History of Political Economy*

*Credit: 0.5*

This course explores the history of ideas in economics. Special attention is given to how economic ideas have informed public policy and popular opinion on the proper role of government. The course aims to develop a deeper understanding of the methods of economic argumentation, including common assumptions and the typical form. After completing this course, the successful student will be able to analyze modern economic theories in light of historical views and critically examine the policy recommendations that follow from these theories. Prerequisite: ECON 101 and 102. Generally offered every year.

### *ECON 360 Game Theory*

*Credit: 0.5*



Game theory is the study of strategic interactions between parties. In this class, we will discuss normal and extensive form games, dominant strategies, Nash equilibria with pure and mixed strategies, and incentive compatibility. We will also discuss applications to economic decision-making, biology, bargaining and negotiation, and political science. We will demonstrate many of these applications using in-class games with real cash incentives. Prerequisite: ECON 101 and 102. Generally offered every year.

### *ECON 371 Experimental and Behavioral Economics*

*Credit: 0.5*

This seminar examines the use of laboratory and field experiments to study economic and social science behavior. We will consider issues relating to the design of experiments, including the use of laboratory versus field methods, financial incentives, control conditions and statistical analysis. We will study several types of economic experiments, including auctions, bargaining, dictator and ultimatum games, games in environmental economics, public goods allocation and voting games. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Generally offered every year.

### *ECON 373 Economic Growth*

*Credit: 0.5 QR*

This seminar examines the sources, process and implications of sustained growth of incomes. Adam Smith's "Wealth of Nations" was an early analysis of how economies grew richer, and the field has developed to explain why there are differences in standards of living across countries. We will consider several theories of the process of economic growth and balance that with empirical evidence on performance of current theory. We will analyze how population growth, technological change, investment in physical and human capital, government policy and the quality of institutions affect growth. Discussion on the implications of economic growth for globalization, environmental conditions and income inequality will figure in our evaluation of the effects of economic growth. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Generally offered every year.

### *ECON 374 Economics of Oil and Gas*

*Credit: 0.5*

This seminar will consider the markets for petroleum products from a variety of perspectives. Analyses of these markets have ranged from microeconomic investigations of the pricing of key products such as crude oil to macroeconomic considerations of the role of energy prices in generating economic booms and busts. The seminar will use models from microeconomics, macroeconomics, and finance to study the pricing of energy products and the role played by these products in economic development. Throughout the seminar, attention will also be paid to historical and political developments related to the economics of oil and gas. As part of the seminar, each student will prepare and present to the class an independent research paper. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Generally offered every three years.

*ECON 375 Advanced Econometrics*

*Credit: 0.5 QR*

This seminar studies the empirical testing of economic models. The seminar's focus will vary depending on the instructor. Possible topics include instrumental variable analysis, time series analysis, panel data analysis or limited dependent variables. Each student will undertake and report on a research project. This counts toward the seminar requirement for the major. Prerequisite: ECON 101, 102 and 205. Generally offered every other year.

*ECON 378 Economics of Women and Work*

*Credit: 0.5*

This seminar examines the role of women in the labor market and how that role has changed over time. This examination involves a comparison of women and men with respect to labor supply (for both market and nonmarket work), wage rates, occupational choices and unemployment levels. The seminar evaluates economic models that attempt to explain differences among labor market outcomes for men and women. Finally, the seminar examines some public policy proposals that are aimed at remedying gender differences in work opportunities and pay. Each student will write and present a seminar paper. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Generally offered every other year.

*ECON 382 Economics of Education*

*Credit: 0.5*

This seminar uses economic theory and empirical analysis to examine both the role of education in the economy and current educational policy debates. The seminar will review the basic theory of investments in education (human capital theory) and investigate the empirical problem of disentangling the impact of education on earnings from the impact of innate ability as well as the association between education and individual earnings and reasons why that relationship has changed over time. The seminar also will examine the role of early childhood education, the main approaches to K-12 school reform and the issues of cost and access to higher education. Each student will write and present a seminar paper. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Generally offered every other year.

*ECON 383 American Economic History*

*Credit: 0.5*

This seminar examines the American past with special emphasis on issues such as the influence of the Constitution on economic growth, welfare and income distribution; the economics of slavery and the post-emancipation plight of blacks in the economy; and 20th-century economic policy, with special emphasis on the Great Depression. Each student will write and present a seminar paper. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Offered intermittently.

### *ECON 385 Sports Economics*

*Credit: 0.5*

This seminar will explore professional and amateur sports from an economic perspective. Aside from recreational and entertainment appeal, the sporting world provides a wealth of applications to several fields in economics such as industrial organization (antitrust and franchising), public finance (stadium financing) and labor economics (labor market discrimination), among others. This course will give students an opportunity to apply theory covered in the core courses of the economics major to explain developments in the world of sports. The course will consist of lectures, readings, class discussions and assessments including individual research papers and class presentations. This counts toward the seminar requirement for the major. Prerequisite: ECON 201 and 205. Generally offered every year.

### *ECON 386 Economics of Health*

*Credit: 0.5*

This seminar examines the economic aspects of the production, distribution and organization of health care services. Topics include measuring output; structure of markets; demand for, supply of and pricing of services; and financing mechanisms and their impact on the relevant markets. Analysis also will focus on government policy toward health care and public health, its impact upon institutions and resource allocation and major policy alternatives. Each student will write and present a seminar paper. This counts toward the seminar requirement for the major. Prerequisite: ECON 101 and 102. Offered intermittently.

### *ECON 393 Individual Study*

*Credit: 0.25-0.5*

This course is for students who wish to do advanced work beyond regular courses or to study subjects not included in course offerings. Credit for this course will count towards the Economics major. The credit to be awarded and the exact structure of the course will be determined by the instructor and approved by the department chair. Typical activities include regularly assigned readings of scholarly material, weekly meetings to discuss the readings, and a research paper project. Prerequisite: ECON 101, 102 and permission of instructor and department chair. Because students must enroll for individual studies by the end of the seventh class day of each semester, they should begin discussion of the proposed individual study preferably the semester before, so that there is time to devise the proposal and seek departmental approval before the registrar's deadline.