

ECONOMICS (ECON-UA)

ECON-UA 1 Introduction to Macroeconomics (4 Credits)

Typically offered Fall, Spring, and Summer terms

Focuses on the economy as a whole (the "macroeconomy?"). Begins with the meaning and measurement of important macroeconomic data (on unemployment, inflation, and production), then turns to the behavior of the overall economy. Topics include long-run economic growth and the standard of living; the causes and consequences of economic booms and recessions; the banking system and the Federal Reserve; the stock and bond markets; and the role of government policy. Prerequisite: Algebra, Trigonometry, and Functions (MATH-UA 9; formerly Algebra and Calculus) or equivalent, or placement into either Mathematics for Economics I (MATH-UA 131; formerly MATH-UA 211) or Calculus I (MATH-UA 121).

Grading: CAS Graded

Repeatable for additional credit: No

ECON-UA 2 Introduction to Microeconomics (4 Credits)

Typically offered Fall, Spring, and Summer terms

Prerequisite: Algebra and Calculus (MATH-UA 9) or equivalent. Focuses on individual economic decision-makers—households, business firms, and government agencies—and how they are linked together. The emphasis is on decision making by households and firms and how these decisions shape our economic life. Explores the different environments in which businesses sell their products, hire workers, and raise funds to expand their operations; the economic effects of trade between nations; and the effects of various government policies, such as minimum-wage legislation, rent controls, antitrust laws, and more. Prerequisite: Algebra, Trigonometry, and Functions (MATH-UA 9; formerly Algebra and Calculus) or equivalent, or placement into either Mathematics for Economics I (MATH-UA 131; formerly MATH-UA 211) or Calculus I (MATH-UA 121).

Grading: CAS Graded

Repeatable for additional credit: No

ECON-UA 10 Intern Microeconomics (4 Credits)

Typically offered Fall, Spring, and Summer terms

Examines the manner in which producers, consumers, and resource owners acting through the market determine the prices and output of goods, the allocation of productive resources, and the functional distribution of incomes. The price system is seen as a network of interrelated decisions, with the market process serving to communicate information to decision makers.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: Minimum grade of C in ECON-UA 2 OR ECON-UB 1 OR ECII-UF 102 OR ECON-SHU 2 OR ECON-SHU 150 or equivalent OR AP Exam Microeconomics ≥ 4 AND MATH-UA 132 OR OR MATH-SHU 151 OR MATH-UH 1021 OR MATH-UH 1020 or MATH-UA 123 or MATH-UA 129.

ECON-UA 11 Microeconomic Analysis (4 Credits)

Typically offered Fall

Rigorous examination of consumer choice, profit-maximizing behavior on the part of firms, and equilibrium in product markets. Topics include choice under uncertainty, strategic interactions between firms in noncompetitive environments, intertemporal decision making, and investment in public goods.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: (ECON-UA 2 OR ECON-UA 9002 OR ECII-UF 102 OR ECII-UF 9102 OR SOCSC-UH 1111 OR Advanced Placement Examination Economics - Microeconomics ≥ 4) AND Prerequisite: (MATH-UA 132 OR MATH-UA 123 OR MATH-UA 129).

ECON-UA 12 Intern Macroeconomics (4 Credits)

Typically offered Fall, Spring, and Summer terms

Study of aggregate economic analysis with special attention paid to the determination of the level of income, employment, and inflation. Critically examines both the theories and the policies associated with them.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: ECON-UA 1 and ECON-UA 10 or ECON-UA 11 or equivalent course or test score.

ECON-UA 13 Macroeconomic Analysis (4 Credits)

Typically offered Spring

Study of aggregate economic analysis, with attention paid to the determination of the level of income, employment, and inflation. Critically examines both the theories and the policies associated with them. This course involves more formal analysis than that used in V31.0012.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: ECON-UA 1 and ECON-UA 10 or ECON-UA 11 or equivalent course or test score.

ECON-UA 18 Statistics (P) (4 Credits)

Typically offered Fall, Spring, and Summer terms

Topics: descriptive statistics; introduction to probability; sampling; statistical inferences concerning means, standard deviations, and proportions; analysis of variance; linear regressions; and correlation. Laboratory periods cover sample problems drawn primarily from economics. Meets three times a week, plus a lab session.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: (MATH-UA 121 OR MATH-UA 131 OR MATH-UA 122 OR MATH-UA 123 OR MATH-SHU 131).

ECON-UA 20 Analytical Statistics (4 Credits)

Typically offered Spring

Introduction to statistical reasoning. Topics covered include descriptive statistics, calculation of moments, probability theory, an introduction to distribution theory, and an introduction to inference. Lab sessions enable the student to run a wide variety of computer experiments and to simulate all distributions that are discussed as well as to experiment with a wide variety of statistical procedures.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: (MATH-UA 122 OR MATH-UA 123 OR MATH-UA 132).

ECON-UA 207 Ethics and Economics (4 Credits)

Typically offered Spring

Study of the interface between ethical and economic theories. Specific topics covered include a brief overview of various ethical ideas, an analysis of the ethical presuppositions of modern economic theory (especially welfare economics), utilitarian ethics, the moral status of free exchange, the ethical implications of imperfect knowledge between bargaining parties, cost-benefit analysis and human rights, the economic content of the "general welfare," and laissez-faire.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: (ECON-UA 2 OR ECON-UA 9002 OR ECON-UB 1 OR ECII-UF 102 OR ECON-UA 9002 OR SOCSC-UH 1111 OR ECON-SHU 2 OR ECON-SHU 3).

ECON-UA 208 Policy Issues in History of Economic Thought (4 Credits)*Typically offered Fall*

Selected policy recommendations drawn from classical to present-day economic thought. Some of the thinkers are Adam Smith, Jeremy Bentham, John Stuart Mill, Philip Wicksteed, Arthur C. Pigou, John Maynard Keynes, Friedrich Hayek, and such modern behavioral economists as Richard Thaler. Policies and writers may vary each year. Topics range widely: the protection of domestic industry, use of taxes to deal with external effects, property rights, the government direction of investment, and alternatives to revealed preference as a welfare standard.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 1 and ECON-UA 2 or equivalent course or test score.**ECON-UA 227 Urban Economics (4 Credits)***Typically offered Fall and Spring*

The city as an economic organization. Urbanization trends, functional specialization, and the nature of growth within the city; organization of economic activity within the city and its outlying areas, the organization of the labor market, and problems of urban poverty; the urban public economy; housing and land-use problems; transportation problems; and special problems within the public sector.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 1 and ECON-UA 2 or equivalent course or test score.**ECON-UA 231 Money and Banking (4 Credits)***Typically offered Fall, Spring, and Summer terms*

Money supply; banking as an industry; banks as suppliers of money; the Federal Reserve System and monetary control; monetary theory; and contemporary monetary policy issues.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 1 and ECON-UA 2 or equivalent course or test score.**ECON-UA 233 Poverty & Income Distribution (4 Credits)***Typically offered Fall*

Defines poverty and welfare. Analyzes who the poor are, why some people are rich and others poor, equality of opportunity, income and status, inequality, trends in the degree of inequality, government's role in income distribution, and international comparisons of inequality.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 2 with a Minimum Grade of C OR ECON-UA 9002 with a Minimum Grade of C OR ECII-UF 102 with a Minimum Grade of C OR ECON-UB 1 with a Minimum Grade of C OR ECON-SHU 2 OR SOCSC-UH 1111 with a Minimum Grade of C).**ECON-UA 238 International Economics (P) (4 Credits)***Typically offered Fall, Spring, and Summer terms*

Focuses on international trade in goods, services, and capital. It serves as an introduction to international economic issues and as preparation for the department's more advanced course in ECON-UA 324. The issues discussed include gains from trade and their distribution; analysis of protectionism; strategic trade barriers; the trade deficit; exchange rate determination; and government intervention in foreign exchange markets.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 1 and ECON-UA 2 or equivalent course or test score.**ECON-UA 266 Intro to Econometrics (4 Credits)***Typically offered Fall*

Application of statistics and economic theory to problems of formulating and estimating models of economic behavior. Matrix algebra is developed as the main tool of analysis in regression. Acquaints students with basic estimation theory and techniques in the regression framework and covers extensions such as specification error tests, heteroskedasticity, errors in variables, and simple time series models. An introduction to simultaneous equation models and the concept of identification is provided.

Grading: CAS Graded**Repeatable for additional credit:** No**ECON-UA 290 Topics in Economics Analysis I (P) (4 Credits)***Typically offered Fall and Spring*

This is a mid-level (200 level) undergraduate elective course offered to encourage department or visiting faculty who wish to give courses in fields that are not in the permanent course offerings. The exact topic of this course is announced before registration each year. Such "Topics courses" are not given regularly and a specific topic presented in any one semester is unlikely to be repeated. Students are allowed to count only one such Topics course for the major.

Grading: CAS Graded**Repeatable for additional credit:** Yes**Prerequisites:** (ECON-UA 1 OR ECON-UA 9001 OR ECII-UF 101) AND (ECON-UA 2 OR ECON-UA 9002 OR ECII-UF 102).**ECON-UA 309 Game Theory and Strategy (P) (4 Credits)***Typically offered Spring*

An applied overview of game theoretical concepts that emphasizes their use in real-world situations. Students develop tools that allow them to formally analyze outcomes in strategic situations and apply game theoretical analysis to a variety of disciplines.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 10 or ECON-UA 9010 or ECON-UH 2010 or ECON-SHU 10 AND MATH-UA 132 or MATH-UA 123 or MATH-UA 9123 or MATH-SHU 151 or MATH-UA 201 or MATH-UA 2114.**ECON-UA 310 Game Theory (T) (4 Credits)***Typically offered Fall and Spring*

Introduction to noncooperative game theory. Focuses on a rigorous development of the basic theory with economic applications such as competition among oligopolists, how standards are set, auction theory, and bargaining. The formal topics include games in strategic form, Bayesian games, and games in extensive form.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 11.**ECON-UA 316 Industrial Organization (4 Credits)***Typically offered Fall, Spring, and Summer terms*

How firms behave in imperfectly-competitive markets. Uses game theory to understand strategic decisions. Topics include price discrimination; peak load pricing; productivity; Bertrand, Cournot, and Hotelling oligopoly models; entry; mergers and merger regulation; monopoly regulation; patents; auctions; and two-sided platforms. Moves from theoretical and mathematical models to real-world data and problem sets.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 10 with a Minimum Grade of C OR ECON-UA 11 OR ECON-UA 9010 with a Minimum Grade of C OR ECON-UB 1 with a Minimum Grade of C OR ECON-UH 2010 with a Minimum Grade of C OR ECON-SHU 10).

ECON-UA 320 Risk & Fluctuations in Financial Markets (4 Credits)*Typically offered occasionally*

The 2008 global financial crisis and continuing market volatility have attracted widespread attention to the factors driving price fluctuations and the challenges of measuring risk in stock and other asset markets. Two approaches have dominated the discussion: rational expectations and behavioral finance. This course will present these two approaches in a way that is accessible to advanced undergraduates and introduce students to a third: imperfect knowledge economics, which recognizes limits to what market participants can possibly know. In addition to reviewing standard econometric tools taught in most university courses, students will learn to make use of survey data. The course develops a structured way to code information contained in these narrative reports with the aim of bridging the gap between the models and the activity of actual market participants. The course concludes with a discussion of the implications of alternative theoretical approaches and empirical evidence for the reform of the financial system aiming to limit its vulnerability to future crisis.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 11 OR ECON-UH 2010 OR ECON-SHU 10) AND ECON-UA 12 or ECON-UA 13 AND ECON-UA 266.**ECON-UA 323 Economic Development (4 Credits)***Typically offered Fall, Spring, and Summer terms*

Economic underdevelopment in Asia, Latin America, and Africa. Macroeconomic topics: economic growth, income distribution, poverty, and underdevelopment as a circular, self-reinforcing trap. Microeconomic topics: markets for land, labor, and credit. Emphasizes market fragmentation, limited information, and incentive problems. Such international issues as trading patterns, capital flows, and global financial crises are studied from the viewpoint of developing countries.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** ECON-UA 10 or ECON-UA 11 and ECON-UA 12 or ECON-UA 13.**ECON-UA 331 Monetary & Banking Theory (4 Credits)**

Builds on intermediate-level courses in this area by focusing on the theoretical foundations of monetary exchange, the deeper determinants of asset demands, and the economic rationale for the existence of banks.

Grading: CAS Graded**Repeatable for additional credit:** No**ECON-UA 336 International Economics: Finance (4 Credits)**

Financial and macroeconomic issues in international economics, the balance of payments, gold and other assets in international portfolios, exchange rate determination, problems of simultaneous achievement of internal and external policy goals, and interdependence of countries? macroeconomic policies.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 10 OR ECON-UA 11 OR ECON-UA 9010 OR ECON-UH 2010 OR ECON-SHU 10) AND (ECON-UA 12 OR ECON-UA 13 OR ECON-UA 9012).**ECON-UA 340 Ownership & Corporate Control (4 Credits)***Typically offered Fall and Spring*

Discusses the conceptual foundations and empirical evidence concerning the effects of private ownership on corporate performance. The corporate control mechanisms in the United States, Germany, Japan, and the emerging market economies of Eastern Europe and the former Soviet Union are reviewed. Particular attention is paid to the role of capital markets (takeovers and other shareholder control devices), banks and other financial institutions, and various corporate institutions (such as boards of directors and meetings of shareholders) in facilitating or hindering corporate control and the efficient allocation of resources.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 10 with a Minimum Grade of C OR ECON-UA 9010 with a Minimum Grade of C OR ECON-UA 11 with a Minimum Grade of C OR ECON-UB 1 with a Minimum Grade of C OR ECON-UH 2010 with a Minimum Grade of C OR ECON-SHU 10).**ECON-UA 345 Political Economy (T) (4 Credits)***Typically offered Spring*

Introduces the emerging field of formal political economy. The variety of ways in which economists and political scientists think about political science and the interplay of political science and economics are analyzed. The first part of the course focuses on the formal modeling of political behavior and political institutions; the theory of social choice (how groups of rational individuals make decisions) and collective action (how groups of rational individuals take action) are analyzed. The second part of the course discusses the connection between politics and economics and investigates the effect of political variables on the determination of economic outcomes. Some questions that are answered: How can special groups of individuals enhance their well being by political action? What is lobbying? What is the effect of contributions on political outcomes?

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 11 with a Minimum Grade of C OR ECON-UA 10 OR ECON-UA 9010 OR ECON-UH 2010 OR ECON-SHU 10).**ECON-UA 351 Labor Economics (4 Credits)***Typically offered Fall and Spring*

Analyzes the functioning of the labor market in both theoretical and statistical terms. Examines the determinants of wage and employment levels in perfect and imperfect labor markets, including the concept of education and training as human capital. Models of labor market dynamics are also examined, including those of job search and matching. The role of public policy in the functioning of labor markets is highlighted throughout.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 10 with a Minimum Grade of C OR ECON-UA 9010 with a Minimum Grade of C OR ECON-UA 11 with a Minimum Grade of C OR ECON-UB 1 with a Minimum Grade of C OR ECON-UH 2010 with a Minimum Grade of C OR ECON-SHU 10).

ECON-UA 353 Public Economics (4 Credits)*Typically offered Fall and Spring*

In alternate years, stresses policy implications and the development of the theory. Analysis of government economic policies and behavior. Normative and positive economics; the fundamental welfare theorems. What goods should the government provide (public goods)? When should the government tax private behavior (externalities)? Income redistribution and the welfare program. Who pays the tax (tax incidence)? The role of debt policy. On what should taxes be levied (optimal taxation)?

Grading: CAS Graded**Repeatable for additional credit:** No

Prerequisites: (ECON-UA 10 with a Minimum Grade of C OR ECON-UA 9010 with a Minimum Grade of C OR ECON-UA 11 with a Minimum Grade of C OR ECON-UB 1 with a Minimum Grade of C OR ECON-UH 2010 with a Minimum Grade of C OR ECON-SHU 10).

ECON-UA 354 Health Economics (4 Credits)

In this course we will study the economics of healthcare demand, provision, and institutions. We will use models and techniques from subfields of economics such as industrial organization, labor economics, information economics, public economics, and behavioral economics to understand the incentives of consumers, doctors, hospitals, insurance companies, and the government as they interact in healthcare markets. The goal is to train students to (a) be able to identify and model the various economic tradeoffs involved in the demand and provision of healthcare, (b) analyze government healthcare policy through the lens of economics, and (c) provide institutional knowledge on American and international health care systems.

Grading: CAS Graded**Repeatable for additional credit:** No**ECON-UA 360 Experimental Economics (4 Credits)***Typically offered Fall and Spring*

Experimental economics is predicated on the belief that economics, like other sciences, can be a laboratory science where economic theories are tested, rejected, and revised. This course reviews the methodology of doing such laboratory experiments and investigates the use of experiments in a wide variety of fields. These include competitive markets, auctions, public goods theory, labor economics, game theory, and individual choice theory. The course functions as a research seminar in which students present their work as it progresses during the semester. Students also get exposure to the experimental laboratory in the Department of Economics and the research performed there.

Grading: CAS Graded**Repeatable for additional credit:** No

Prerequisites: (ECON-UA 10 with a Minimum Grade of C OR ECON-UA 9010 with a Minimum Grade of C OR ECON-UA 11 with a Minimum Grade of C OR ECON-UB 1 with a Minimum Grade of C OR ECON-UH 2010 with a Minimum Grade of C OR ECON-SHU 10).

ECON-UA 365 Advanced Micro Theory (T) (4 Credits)*Typically offered Spring*

Designed to introduce students to some of the main model-building techniques that have been developed by microeconomists. Intended for advanced undergraduates who have taken the necessary preparatory courses in economics and mathematics. Three basic topics are covered. The first topic is the static theory of consumer behavior both in a certain world and in an uncertain world. The second topic is the theory of general equilibrium. The third topic is the theory of dynamic optimization. In addition to the coverage of the economics, the advanced mathematical techniques that are needed to understand the material are reviewed.

Grading: CAS Graded**Repeatable for additional credit:** No**ECON-UA 366 Markets with Frictions (4 Credits)**

In this class, we will study the equilibrium and efficiency properties of markets in which there are information frictions—in the sense that market participants have limited information regarding the quality and price of various goods—and transaction frictions—in the sense that market transactions are carried out in a decentralized fashion. We will show that realistic information and transaction frictions can provide a simple and natural explanation for unemployment, credit rationing, wage inequality, price dispersion, as well as for other phenomena that cannot be understood in the context of the neoclassical framework. Moreover, we will show that, once information and transaction frictions are taken into account, the market allocation need not be efficient and appropriate government interventions may lead to welfare gains.

Grading: CAS Graded**Repeatable for additional credit:** No

Prerequisites: (ECON-UA 10 or ECON-UA 11) AND (ECON-UA 12 or ECON-UA 13) AND (ECON-UA 18 or ECON-UA 20).

ECON-UA 367 Advanced Macroeconomics (T) (4 Credits)*Typically offered Fall and Spring*

Explores theoretical and empirical issues of central importance to macroeconomic research and policy. Topics include: economic growth, consumption and savings, investment, and business cycle fluctuations. Also explores the relationship between monetary policy and output, and optimal monetary policy. Examines the implications of macroeconomic theory for macroeconomic data. Readings include original research articles.

Grading: CAS Graded**Repeatable for additional credit:** No

Prerequisites: (ECON-UA 11 with a Minimum Grade of C OR ECON-UA 10) AND (ECON-UA 12 OR ECON-UA 13) AND (ECON-UA 18 OR ECON-UA 20).

ECON-UA 368 Financial Economics (P) (4 Credits)*Typically offered Spring*

Prerequisite: Intermediate Microeconomics (ECON-UA 10) and Intermediate Macroeconomics (ECON-UA 12). Restriction: not open to students from the Stern School of Business. Offered every year. 4 points. /Provides theoretical and practical tools for understanding the operation of financial markets, the meaning of risk, and its relation to financial return. Also develops concepts of systematic versus idiosyncratic risk, market efficiency, the equilibrium determination of interest rates both in the overnight, interbank lending market and in the market for corporate debt, term and default premia in the bond market, and average excess stock returns in the equity market.

Grading: CAS Graded**Repeatable for additional credit:** No

Prerequisites: (ECON-UA 10 with a Minimum Grade of C OR ECON-UA 9010 with a Minimum Grade of C OR ECON-UH 2010 OR ECON-SHU 10) AND (ECON-UA 12 with a Minimum Grade of C OR ECON-UA 9012 with a Minimum Grade of C).

ECON-UA 370 Topics: Economic Research (4 Credits)*Typically offered Fall and Spring*

Explores economic issues of economic policy using the tools learned in the intermediate micro- and macroeconomic courses. Focuses on a particular issue each term.

Grading: CAS Graded**Repeatable for additional credit:** Yes**Prerequisites:** (ECON-UA 10 OR C31).

ECON-UA 402 Advanced Econometrics (P,T) (4 Credits)*Typically offered Fall and Spring*

Designed for honors economics majors, but students not pursuing honors who satisfy the GPA requirements (3.65 overall and in economics courses) and meet the prerequisite are encouraged to enroll. Preparation for carrying out empirical research in economics, emphasizing the relationship between economic models and observable data. Covers nonlinear methods and a selection of topics in time-series data.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 380 OR ECON-UA 266).**ECON-UA 410 Honors Tutorial (4 Credits)***Typically offered Fall*

The objective of the course is to train students to write on economic topics and perform economic analysis efficiently and quickly, as well as to develop rhetorical skills. Once a week, two students each present a paper on an assigned topic that has been distributed previously to the other students. The students not presenting that week critique the paper and the presentation, as will the instructor. Each paper is to be revised and submitted to the instructor with a cover sheet that indicates how the student dealt with each of the criticisms.

Grading: CAS Graded**Repeatable for additional credit:** No**ECON-UA 450 Honors Thesis I (4 Credits)***Typically offered Spring*

Students interested in pursuing Honors Thesis should meet with the director of undergraduate studies in the spring semester of their junior year.

Grading: CAS Graded**Repeatable for additional credit:** No**Prerequisites:** (ECON-UA 10 OR C31).**ECON-UA 997 Internship in Economics (1-2 Credits)***Typically offered Fall, Spring, and Summer terms*

Prerequisites: Intermediate Microeconomics (ECON-UA 10) or Microeconomics (ECON-UA 11); and Intermediate Macroeconomics (ECON-UA 12) or Macroeconomics (ECON-UA 13); 3.5 GPA; and permission of the director of undergraduate studies. Restrictions: Internships may be taken for a maximum of two credits per semester in no more than two semesters*; internship credit does not count toward major requirements*. Offered every semester. 1 to 2 points per term.

The student is an intern in an organization in which they perform duties that significantly enhance their ability to apply economic principles in practice. For successful completion of an internship, the student must prepare a three-page report in which they describe the manner in which the internship has enhanced their understanding of economics

Grading: CAS Pass/Fail**Repeatable for additional credit:** Yes**Prerequisites:** (ECON-UA 10 OR ECON-UA 11) AND ECON-UA 12 AND ECON-UA 13.**ECON-UA 998 Independent Study (1-4 Credits)***Typically offered Fall, Spring, and Summer terms*

Prerequisites: Intermediate Microeconomics (ECON-UA 10) or Microeconomics (ECON-UA 11); and Intermediate Macroeconomics (ECON-UA 12) or Macroeconomics (ECON-UA 13); 3.5 GPA; and permission of the director of undergraduate studies. Restrictions: No more than a total of 8 points of independent study may be taken; independent study does not count toward major requirements. Offered every semester. 1 to 4 points per term. The student engages in intensive independent study of an important economic topic under the direction of a departmental faculty member. When engaging in independent study, the results of the study are embodied in a report or paper to be specified by the instructor.

Grading: CAS Graded**Repeatable for additional credit:** Yes**Prerequisites:** (ECON-UA 10 OR ECON-UA 11) AND (ECON-UA 12 OR ECON-UA 13).**ECON-UA 9001 Introduction to Macroeconomics (4 Credits)**

This introductory course provides students with a basic understanding of fundamental (macro)economic theories. The course is concerned with the definition and the theory of determination of national income, employment, business fluctuations, and price level. It also introduces students to the functions of money in a fractional-reserve banking system. The concepts of economic "circular flow", national income accounting, unemployment, inflation, government taxation and spending and money will be defined, explained and discussed. Finally instruments, functioning and effectiveness of both monetary and fiscal policy aimed to stabilize prices and maintain high levels of output and employment are discussed in the current macroeconomic context of major world economies.

Grading: CAS Graded**Repeatable for additional credit:** No**ECON-UA 9002 Introduction to Microeconomics (4 Credits)**

This course provides a survey of microeconomic issues at introductory level. We will make use of theories and empirical examples to understand key aspects of the significant changes that take place in the world economies. We will explore a wide range of economic phenomena including poverty and income distribution, firms' market power and costs structure, firms' investments and business strategies, the role of antitrust law and regulation. Every piece of theory is related to applications so as to offer a continuing sense of the relevance of theory to reality.

Grading: CAS Graded**Repeatable for additional credit:** No

ECON-UA 9010 Interm Microeconomics (4 Credits)

The aim of the course is to provide students with a thorough understanding of the core concepts and methods of microeconomics. The course can serve as a foundation for more advanced undergraduate electives which require a microeconomics background. Students will develop their understanding of economic models specified in standard mathematical and/or game theoretic terms. Course content includes core topics of consumption, production, and decision-making by firms (both with and without market power) as well as the analysis of market failure due to public goods and externalities. The core also includes an introduction to decision making under conditions of uncertainty. These topics are analyzed more deeply and more rigorously than in introductory principles courses. Depending on time available, the course will cover a selection of further topics. These include some or all of: asymmetric information, general equilibrium, and behavioral economics. Because this course caters to the policy concentration stream, the level of mathematics is somewhat lower than it would be on the theory concentration, and the course will make extensive use of diagrams and stress the intuition of results. Nevertheless, intermediate microeconomics is rigorous and analytical. The calculus prerequisite is there for a reason and students will need to be familiar with basic differentiation, including partial differentiation. While the level of mathematics is not advanced, all students of intermediate microeconomics must be prepared for some mathematical analysis.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: Minimum grade of C in ECON-UA 2 OR ECON-UB 1 OR ECI-UF 102 OR ECON-SHU 2 OR ECON-SHU 150 or equivalent OR AP Exam Microeconomics ≥ 4 AND MATH-UA 132 OR OR MATH-SHU 151 OR MATH-UH 1021 OR MATH-UH 1020 or MATH-UA 123 or MATH-UA 129.

ECON-UA 9012 Interm Macroeconomics (4 Credits)

Why did the global economy find itself on the edge of a precipice in 2008, why did free markets fail so spectacularly, how well did governments and central banks cope, are we out of the woods? This course seeks to equip students with the basic analytical and practical skills necessary to begin answering such fundamental questions. As an academic discipline, Macroeconomics has been heavily criticised in recent years: for not predicting the 2007-onwards credit crunch; for using simplistic, out-of-date models; for ignoring data that challenged stylised theories; and for failing to acknowledge that economic theory has little to offer without a clear, socio-political and historical context. Our principal objective is to counter some of these criticisms, not by reinventing the wheel but rather by introducing key contemporary issues and seeing what insights we can gain by applying relevant and appropriate macro analysis. A core objective of this course is to show that Macroeconomics, carefully and intelligently deployed, can offer helpful insights for addressing society's key challenges in the 21st century.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: ECON-UA 1 and ECON-UA 10 or ECON-UA 11 or equivalent course or test score.

ECON-UA 9020 Analytical Statistics (4 Credits)

Typically offered Fall

Introduction to statistical reasoning. Topics covered include descriptive statistics, calculation of moments, probability theory, an introduction to distribution theory, and an introduction to inference. Lab sessions enable the student to run a wide variety of computer experiments and to simulate all distributions that are discussed as well as to experiment with a wide variety of statistical procedures.

Grading: CAS Graded

Repeatable for additional credit: No

ECON-UA 9219 Economics of European Integration (4 Credits)

Aim of the Course is to offer a wide perspective on the main economic issues concerning the European economy. We will discuss the characteristics of the role of EU and the EU monetary union that comes from a long period of economic coordination in a globalized context. We will focus on the role of EU and main international institutions on the recent financial turmoil. The financial crisis that hit the global economy since the summer of 2008 is without precedent in post-war economic history. Although its size and extent are exceptional, the crisis has many features in common with similar financial-stress driven recession episodes in the past. However, this time there's something different, with the crisis being global akin to the events that triggered the Great Depression of the 1930s. This crisis spread quickly and rapidly moved from the US to European countries that show the weakest economic indicators (PIIGS: Portugal, Ireland and Italy, Greece and Spain). This course will focus on the long run causes, consequences and EU responses to the crisis, conditionally on the characteristics of the countries involved. We will focus on the long process of European Integration and discuss whether it may represent a possible solution to the recent crisis

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: (ECON-UA 1 OR ECON-UA 5 OR SOCSC-UH 1112 OR ECON-SHU 2 OR ECON-UA 9001 OR ECI-UF 9101 OR ECON-UH 1112 OR ECON-SHU 1 OR ECI-UF 101 OR Advanced Placement Examination Economics - Macroeconomics ≥ 4).

ECON-UA 9231 Money & Banking (4 Credits)

This course offer a perspective on the workings of the monetary and financial system within a country and at an international level. The role of money and the tools to conduct monetary policy will be analyzed in detail. The concept of the value of money now and in the future will help us understand the role of interest rates and of risk; various way to store wealth will take us into the structure of financial markets where financial instruments are created and traded to meet diverse needs. Some basic concepts on the role played by commercial banks will introduce the function of the Central Bank and of monetary policy in the overall goal of ensuring financial stability to the system. Current issues, such as the role of the European Central Bank and the instability created by the subprime mortgage crisis, will be discussed.

Grading: CAS Graded

Repeatable for additional credit: No

ECON-UA 9238 International Economics (4 Credits)

The course develops a systematic understanding of the key areas of international economics theory namely, analysis of trade (comparative advantage, factor endowments, etc.), analysis of the welfare costs of trade barriers, the discussion of politics of protectionism and trade policy, purchasing power parity, interest rate parity and exchange rate relationships, monetary and fiscal policy under fixed and flexible exchange rates and the significance of different exchange rate regimes.

Grading: CAS Graded

Repeatable for additional credit: No

ECON-UA 9316 Industrial Organization (4 Credits)

Typically offered Fall

How firms behave in imperfectly-competitive markets. Uses game theory to understand strategic decisions. Topics include price discrimination; peak load pricing; productivity; Bertrand, Cournot, and Hotelling oligopoly models; entry; mergers and merger regulation; monopoly regulation; patents; auctions; and two-sided platforms. Moves from theoretical and mathematical models to real-world data and problem sets.

Grading: CAS Graded

Repeatable for additional credit: No

Prerequisites: (ECON-UA 10 OR ECON-UA 11).