

## ECONOMICS

### THE FACULTY

Nathaniel Cline  
Rafat Fazeli  
Lorenzo Garbo  
Dorene Isenberg  
Nicholas Reksten  
Nicholas Shunda

### THE MAJOR

The major program in economics offers the following three degrees:

#### 1. BACHELOR OF ARTS IN ECONOMICS:

A course of study in Economics that emphasizes its interdisciplinary and political economic character, gives students the greatest freedom in choosing Economics electives, and is especially recommended to students interested in working in policy and/or the non-profit sector. In the capstone project that concludes the major, students are expected to integrate their studies in Economics with at least one course taken in other social sciences or humanities.

#### 2. BACHELOR OF SCIENCE IN ECONOMICS:

A course of study in Economics that emphasizes its quantitative and political economic aspects (related field: Mathematics), and that is especially recommended to students who might be interested in pursuing graduate studies in Economics or working in policy and/or the non-profit sector.

#### 3. BACHELOR OF SCIENCE IN FINANCIAL ECONOMICS:

A course of study in Economics that emphasizes its financial and applied aspects (related fields: Accounting and Global Business), and that is especially recommended to students who might be interested in entering the business world in general and the financial sector in particular upon graduation.

Learning outcomes for the three degrees may be found at [www.redlands.edu/BA-ECON/learning-outcomes](http://www.redlands.edu/BA-ECON/learning-outcomes).

### GRADE REQUIREMENTS

In order to satisfy prerequisites for any economics course, the specified courses (whether in Economics or in other departments) must be passed with a grade of 2.0 or higher. Additional courses taken toward any one of the three Economics degrees described above or towards the minor in Economics (described below) must be passed with a grade of 1.7 or higher.

### QUANTITATIVE PREPARATION

Calculus is a prerequisite for ECON 350 Microeconomic Theory and ECON 351 Macroeconomic Theory courses required for all minors in Economics and majors in Economics and Financial Economics. Students satisfy this requirement by completing one of the following three options: MATH 121 Calculus I (4), or the sequence MATH 118 Integrated Calculus I (4) and MATH 119 Integrated Calculus II (4), or by being placed in MATH 122 Calculus II (4) or above in the placement test administered by the Mathematics department.

## CORE ECONOMICS REQUIREMENTS FOR ALL ECONOMICS AND FINANCIAL ECONOMICS MAJORS:

All majors in Economics and Financial Economics must complete the following required courses:

6 courses/ 22 credits

- ECON 101 Principles of Economics (4)
- MATH 111 Elementary Statistics and Probability with Applications (4) or POLI 202 Statistical Analysis and Mapping of Social Science Data (4). Should be taken prior to the junior year and preferably during the sophomore year.
- ECON 310 Research Methods in Economics (2)
- ECON 350 Microeconomic Theory (4)
- ECON 351 Macroeconomic Theory (4)
- ECON 465 Senior Seminar in Economics (4)

## BACHELOR OF ARTS IN ECONOMICS

In addition to the Core Economics Requirements listed above, candidates for the Bachelor of Arts degree must also complete the following 5 courses:

REQUIREMENTS: 5 courses/20 credits

- ECON 304 Economic History (4) or ECON 307 History of Economic Thought (4)

ELECTIVES: 4 courses/ 15–16 credits

- At least four elective courses in Economics (15-16 credits) at the 200-level or higher. At most two of these may be at the 200-level. At most one elective may be a course offered by another program and cross-listed with Economics. May Term courses (3 credits) in Economics or courses offered by another program and cross-listed with Economics qualify as elective courses.

## BACHELOR OF SCIENCE IN ECONOMICS

In addition to the Core Economics Requirements courses listed above, candidates for the Bachelor of Science degree must also complete the following 10 courses:

REQUIREMENTS: 3 courses / 12 credits

- ECON 304 Economic History (4) or ECON 307 History of Economic Thought (4)
- ECON 400 Introduction to Econometrics (4)
- ECON 401 Mathematical Economics (4)

ELECTIVES: 3 courses/ 11–12 credits

- Three elective courses in Economics at the 200-level or higher. At most one of these may be at the 200-level. At most one elective may be a course offered by another program and cross-listed with Economics. May Term courses (3 credits) in Economics or courses offered by another program and cross-listed with Economics qualify as elective courses. With advisor approval, a MATH course may be substituted as an elective course.

MATHEMATICS: 4 courses (at least)/ 16–20 credits

- MATH 121 Calculus I (4) or MATH 118 Integrated Calculus I and MATH 119 Integrated Calculus II
- MATH 122 Calculus II (4)
- at least one course chosen from among the following: MATH 231 Introduction to Modeling (4), MATH 235 Differential Equations (4), MATH 241 Linear Algebra (4), MATH 311 Probability (4), or MATH 321 Real Analysis (4).
- a fourth Mathematics course of the student's choice (4)

#### BACHELOR OF SCIENCE IN FINANCIAL ECONOMICS

In addition to the Core Economics Requirements listed above, candidates for the Bachelor of Science in Economics must also complete the following eleven additional courses:

REQUIREMENTS: 11 courses/ 44 credits

5 courses in Economics (20 credits)

- ECON 430 Financial Systems (4)
- ECON 400 Introduction to Econometrics (4)
- ECON 424 International Economics (4)
- ECON 230 Does Money Make the World Go Round? A Look at Money in Capitalism (4)
- ECON 452 Industrial Organization and Public Policy (4)

6 courses (23 credits) in Accounting/Global Business

- ACCT 210 Principles of Financial Accounting (4)
- ACCT 310 Intermediate Accounting (4)
- ACCT 320 Intermediate Financial Reporting for Financing Transactions (4)
- GLB354 Investments (4)
- GLB 421 Corporate Finance (4)
- One course chosen from among the following: ACCT 330 Intermediate Financial Reporting for Investing Transactions (4) or ACCT 410 Auditing (4) or ACCT 440 Financial Statement Analysis (4)

#### THE MINOR

Students who elect a minor in Economics must complete the following 6 economics courses.

6 courses/ 22-24 credits

- ECON 101 Principles of Economics (4)
- MATH 111 Elementary Statistics and Probability with Applications (4) or POLI 202 Statistical Analysis and Mapping of Social Science Data (4). Should be taken prior to the junior year and preferably during the sophomore year.
- ECON 350 Microeconomic Theory (4)
- ECON 351 Macroeconomic Theory (4)
- at least 2 elective courses in Economics at the 200-level or higher (no more than 1 course at the 200-level) (ECON 310 Research Methods in Economics (2) does not count toward the minor). Either ECON 304 Economic History (4) or ECON 307 History of Economic Thought (4) is strongly recommended. May Term courses (3 credits) in Economics or courses cross-listed with Economics qualify as electives.

### ADVANCED PLACEMENT IN ECONOMICS

- Students who take Advanced Placement Macroeconomics with a score of 4 or above will only receive 4 State and Economy Liberal Arts Foundation credits.
- Students who take Advanced Placement Microeconomics with a score of 4 or above will only receive 4 State and Economy Liberal Arts Foundation credits.
- Students who take Advanced Placement Macroeconomics and Advanced Placement Microeconomics with a score of 4 or above will receive 4 credits in State and Economy Liberal Arts Foundation.

Students who receive a score of four or higher in macroeconomics and microeconomics exams receive 4 credits for ECON 101 Principles of Economics. The department also accepts these scores to fulfill the ECON 101 prerequisites for economics electives and to fulfill the ECON 101 requirement for the majors in Economics and Financial Economics and the minor in Economics.

### DEPARTMENTAL HONORS

A departmental honors program is available for exceptionally able and well-motivated students. Interested students should inquire about requirements and the application process with their Economics advisor and/or department chair during the Spring semester of their junior year. Admission to the program requires an affirmative vote of all Economics faculty and must be completed within the first month of the senior year.

### INTERNSHIPS

Students are encouraged to pursue internships to complement their academic work at the University. Students may earn 3 to 14 credits for participating in internships that are closely related to their courses of study, but a maximum of 4 credits may count toward fulfilling the requirements of any of the degrees in economics; students must obtain departmental sponsorship before the internship begins.

### COURSE DESCRIPTIONS (ECON)

100 Economics and Society.

Fall (4), Spring (4).

The course provides an analytical, non-technical introduction to the study of socioeconomic issues from a variety of political and economic perspectives. It explores the structure of fundamental dynamics of a market economy, interactions between individuals, markets, and government institutions, economic aspects of social issues, and moral dimensions of economic processes.

101 Principles of Economics.

Fall (4), Spring (4).

Introduction to the study of economic systems from a micro and macro perspective. The course includes economic principles underlying the process of consumption, production, and distribution in a market-oriented economy (microeconomics), and the structure, operation, measures, and major theoretical models of the whole economy (macroeconomics).

## 202 Game Theory.

Spring (4).

Application of the analytical tools of mathematics and probability to the study of behavior in strategic interactions. Topics include simultaneous move games, pure versus mixed strategies, Nash equilibrium, sequential-move games, sub-game perfection, repeated games, and evolutionary games. Applications include pricing, advertising, cooperation, bargaining, and conflict.

Prerequisite: ECON 100 or ECON 101 or by permission.

Offered in alternate years.

## 205 Ecological Economics.

Spring (4).

The course explores the relationship between the ecological system and economic sub-systems. Topics of the course include the economics of entropy, throughput, alternative notions of environmental sustainability, ecological impacts of technological change, limits to economic growth, and analysis of policies to promote sustainability.

Prerequisite: ECON 100 or ECON 101 or by permission.

Offered in alternate years.

## 212 Political Economy.

Fall (4) Spring (4)

Analysis of the interactions among various dimensions of social formations such as the economy, the state, class structures, and ideology, with a specific emphasis on heterodox economic paradigms which may include feminist, humanistic, institutionalist, Marxist, and post-Keynesian approaches to economic theory and policy.

Prerequisite: ECON 100 or ECON 101 or by permission.

Offered as needed.

Numeric and Evaluation grade only.

## 221 Economics of Development.

Spring (4).

Development theories grounded in the development patterns of Western and Eastern Europe, North America, Latin America, Australia, and Southeastern Asia. Issues of development and income distribution, population growth, and countries' cultural and economic openness. Comparison of development and growth theory.

Prerequisites: ECON 100 or ECON 101 or by permission.

Offered in alternate years.

## 222 International Political Economy.

Fall (4).

Study of the dialogue between scholarship and practice in economics and political science on the three broad topics: the political economy of international trade, international financial relations, and development. The primary focus is on the reciprocal interactions among markets, social forces, and political objectives that shape the international political economic system.

Prerequisite: ECON 100 or ECON 101, or by permission.

Offered in alternate years.

Numeric and Evaluation grade only.

230 Does Money Make the World Go Round? A Look at Money in Capitalism.

Fall (4).

The role of the financial sector in producing strong stable economic activity or as a source of instability is analyzed. Emphasis is on financial structure, institutions, regulation, and the role of monetary policy.

Prerequisite: ECON 100 or ECON 101 or by permission.

Offered in alternate years.

240 Economics of Race, Class, and Gender.

Fall (4).

The economic position of women and minorities in society. Racial and sexual discrimination, women's labor force participation, occupational segregation, domestic work, immigration of workers, and racial marginalization in market economies. Mediating influences such as education, spatial forces, and institutional and public policies. Gender/race relations in industrial/Third World countries.

Prerequisite: ECON 100 or ECON 101 or by permission.

Offered in alternate years.

254 Economics of the Public Sector.

Spring (4).

This course looks at the economics of public expenditure and public revenue. Public expenditure: allocative role of federal, state, and local governments; social choice, provision of public goods and public policy to correct diseconomies such as pollution. Public revenue: Alternative forms of taxation and their impact on economic efficiency, equity, and growth.

Prerequisite: ECON 100 or ECON 101 or by permission.

Offered in alternate years.

304 Economic History.

Fall (4).

Broad themes in global economic history. Topics include pre-capitalistic economic society, the rise of capitalism, causes and consequences of the industrial revolution, and the divergence in the long-run growth experience of countries.

Prerequisite: ECON 101 or by permission.

307 History of Economic Thought.

Spring (4).

Economic doctrines throughout the Western evolution of economic ideas. Historiographical discussion of major analytical discoveries, with particular emphasis on the conditions that led to the separation of economics from moral philosophy, and on the contributions by Adam Smith, John Stuart Mill, Karl Marx and Alfred Marshall.

Prerequisite: ECON 101 or by permission.

310 Research Methods in Economics.

Fall (2), Spring (2).

Fundamentals of the research process in economics, including specification of research questions.

Identification and use of sources, statements and claims, and communication of the results of a research project. Introduction and comparison of the range of economic methodologies.

Prerequisites: ECON 101, MATH 111, or POLI 202, and junior standing or by permission.

Numeric and Evaluation grade only.

### 350 Microeconomic Theory.

Fall (4), Spring (4).

Theory of the household, the firm, and the market. The logic of market decision-making, resource allocation, and efficiency questions.

Prerequisites: ECON 101, and MATH 121 (or MATH 118 and MATH 119), or by permission.

### 351 Macroeconomic Theory.

Fall (4), Spring (4).

The use of theoretical tools to explain the level and changes in aggregate income, employment, and price level; classical, Keynesian, and new classical approaches; application of theory to problems of national economic policy.

Prerequisites: ECON 101, MATH 111 or POLI 202, and MATH 121 (or MATH 118 and MATH 119) or by permission.

### 400 Introduction to Econometrics.

Fall (4).

Application of descriptive and inferential statistics to the measurement and testing of various economic models. Diagnosis and correction of various problems with empirical research: specification errors, multicollinearity, heteroskedasticity, serial correlation, and simultaneity. Statistical software used to implement estimation techniques.

Prerequisites: ECON 350, MATH 111 or POLI 202 or by permission.

### 401 Mathematical Economics.

Spring (4).

Introduction to mathematical methods in economics. Topics include matrices, linear algebra, systems of equations; univariate and multivariate differential calculus; comparative statistics, Taylor series approximations, unconstrained and constrained optimization; integral calculus; differential and difference equations.

Prerequisite: ECON 350 or by permission.

Offered in alternate years.

### 424 International Economics.

Spring (4).

Theoretical analysis of international trade and finance. Models of comparative advantage and analysis of commercial policy (tariffs, subsidies, quotas, government procurement, and regulation). History and functions of the world financial system. Analysis of exchange rates and exchange rate regimes. Balance of payments analysis, and short-run/long-run macroeconomic models in open economy.

Prerequisites: ECON 350 and ECON 351 or by permission.

Offered in alternate years.

Numeric and Evaluation grade only.

#### 430 Financial Systems.

Fall (4).

The creation of money and other financial assets is analyzed in the context of their use and distribution in different periods of capitalism. Emphasis is on the role of the financial sector in producing strong stable economic activity or as a source of instability.

Prerequisites: ECON 350, ECON 351, and ECON 310.

Offered in alternate years.

Numeric and Evaluation grade only.

#### 452 Industrial Organization and Public Policy.

Spring (4).

Analysis of the various ways that firms in the imperfectly competitive industries seek to compete or to gain and maintain market power. Topics include theory of the firm, price discrimination, quality discrimination, advertising, product differentiation, entry deterrence, cartelization and the social welfare implications of firm behavior and industrial structure.

Prerequisite: ECON 350 or by permission.

Offered in alternate years.

#### 453 Economics of Labor.

Spring (4).

Development and utilization of human resources: wage determination, labor force participation, employment patterns, the role of labor organizations, human capital theories, manpower policies and programs.

Prerequisites: ECON 350 or by permission.

Recommended: ECON 351.

Offered in alternate years.

#### 455 Environmental and Resource Economics.

Fall (4).

Overview of the theory and management of natural resource use and environmental policy. Topics include the control of air and water pollution, solid waste management and recycling, forestry, curbing suburban sprawl, water management, and mitigation of climate change. Issues addressed from both theoretical and empirical perspectives.

Prerequisite: ECON 350 or by permission.

Recommended: ECON 351.

Offered in alternate years.

#### 460 Advanced Topics in Economics.

Fall (4), Spring (4).

Continuation of a specific 300- or 400-level course in economics, allowing students to pursue topics beyond one semester. 0

Prerequisite: by permission only.

Offered in alternate years.

Numeric and Evaluation grade only.



465 Senior Seminar in Economics.

Fall (4) Spring (4).

Independent student research on one or more economic problems. Discussion, debate, and critical analysis of a variety of topics in a seminar setting. Open to majors only.

Prerequisites: six courses in economics, including ECON 350 and ECON 351 or by permission.