ECONOMICS

Office: Sturm Hall, Room 246
Mail Code: 2000 E. Asbury Ave. Denver, CO 80208
Phone: 303-871-2685
Email: Economics@du.edu
Web Site: http://www.du.edu/ahss/economics

Economics is the study of the production and distribution of material wealth. This study offers an understanding of the market and non-market institutions—and their historical evolution—that govern such production and distribution at the local, national and global levels. Students examine how individual markets for products, labor and finance work, and why they function well or poorly in part and in whole. They analyze economic structural changes and learn theories of business cycles, as well as investigate the choices and consequences of government policy alternatives. The Economics major can prepare students for a variety of careers in business, banking, government, and education. Economists hold positions in private industry and government as leaders, consultants, analysts, or advisors. Economics is also a good major for students who are interested in pursuing advanced degrees in Law, Business, International Studies, and, of course, Economics.

Major

Bachelor of Arts Major Requirements
(183 credits required for the degree [http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/bachelorofarts/])

42 credits, including the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1020</td>
<td>Economics: A Critical Introduction</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1030</td>
<td>Introduction to Micro and Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2020</td>
<td>Intermediate Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2030</td>
<td>Intermediate Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2050</td>
<td>History of Economic Thought</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2670</td>
<td>Quantitative Methods</td>
<td>4</td>
</tr>
<tr>
<td>ECON 3990</td>
<td>Capstone: Research, Evaluate, and Report on Living in CO</td>
<td>2</td>
</tr>
</tbody>
</table>

A minimum of four other upper-division ECON elective courses (2000 or 3000 level) of which one must be at the 3000 level*

16 credits

Students must take one course with the service-learning (SLRN) attribute or complete an internship (requires registering for ECON 2980 for 0 credits).**

Total Credits

42

* Elective courses should be chosen in consultation with a major advisor.

** Any 2000-level or above course with the service-learning attribute from any major can satisfy this requirement, including an ASEM. However, only an ECON course with the SLRN attribute will also count towards the elective credits. Enrollment in the internship course requires approval from the department’s internship coordinator or chair. The combination of experiential learning through a SLRN course or internship plus the Capstone course constitute the ECON major’s “Keystone Experience.”

Secondary Major

Secondary Major

42 credits. Same requirements as for the BA degree.

Minor

Minor Requirements

20 credits, including the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1020</td>
<td>Economics: A Critical Introduction</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1030</td>
<td>Introduction to Micro and Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2020</td>
<td>Intermediate Microeconomics</td>
<td>4</td>
</tr>
</tbody>
</table>

or ECON 2030 Intermediate Macroeconomics
At least 2 upper-division courses (2000 or 3000 level)  

Total Credits 20

Requirements for Distinction in the Major in Economics

- Minimum 3.5 cumulative GPA
- Minimum 3.75 major GPA
- Of the four electives, two must be at the 3000-level
- Completion of ECON 3997 Economics Honors Thesis (4 credits, not considered a 3000-level elective)
- Total of 46 credits

BA in Economics

The following course plan is a sample quarter-by-quarter schedule for intended majors. Because the bachelor of arts (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/bachelorofarts/) curriculum allows for tremendous flexibility, this is only intended as an example; that is to say, if specific courses or requirements are not available in a given term, students can generally complete those requirements in another term. More importantly, students should focus on exploring areas of interest, including Common Curriculum requirements and possible minors or second majors, and maintaining a course load which will allow for completion of the degree within four years.

Ideally, Common Curriculum (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/degreesanddegerequirements/) requirements other than Advanced Seminar should be completed during the first two years. Students should anticipate taking an average course load of 16 credits each quarter.

Ways of Knowing courses in the areas of Analytical Inquiry: Society and Culture (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/selectionadegreeprogram/courseplans/ai-society-courses/) and Scientific Inquiry: Society and Culture (http://bulletin.du.edu/undergraduate/undergraduateprograms/traditionalbachelorsprogram/selectionadegreeprogram/courseplans/si-society-courses/) introduce students to University-level study of disciplines in the arts, humanities and social sciences. Credits earned in Ways of Knowing courses may also apply to a major or minor.

The sample course plan below shows what courses a student pursuing this major might take in their first two years; beyond that, students should anticipate working closely with their major advisor to create a course of study to complete the degree.

### First Year

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Credits</th>
<th>Winter</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSEM 1111</td>
<td>4 WRIT 1122</td>
<td>4 WRIT 1133</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language sequence OR SI Natural sequence</td>
<td>4 Language sequence OR SI Natural sequence</td>
<td>4 Language sequence OR SI Natural sequence</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AI Society or SI Natural</td>
<td>4 AI Society or SI Natural</td>
<td>4 AI Society or SI Natural</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 1020</td>
<td>4 ECON 1030</td>
<td>4 Upper-Division ECON Course</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>16</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Second Year

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Credits</th>
<th>Winter</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language sequence OR SI Natural sequence</td>
<td>4 Language sequence OR SI Natural sequence</td>
<td>4 Language sequence OR SI Natural sequence</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 2020</td>
<td>4 ECON 2030</td>
<td>4 ECON 2050 (or other Upper-Division ECON Course)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI Society</td>
<td>4 SI Society</td>
<td>4 ECON 2670 (or other Upper-Division ECON Course)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-Division ECON Course</td>
<td>4 Upper-Division ECON Course</td>
<td>4 Minor or Elective</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTZ 2501</td>
<td>2</td>
<td>INTZ 2501</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>16</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 98

1 INTZ 2501 is required for any student who studies abroad, and may be taken in any quarter within the year prior to studying abroad.
ECON 1020 Economics: A Critical Introduction (4 Credits)
The course gives students a critical understanding of basic economic concepts, showing the importance of differences in the understanding of these concepts by different economic theories: the theories differ both in their view of the economy and its place in society; and in the potential impact of their policy recommendations on different individuals and social groups. The course begins with the immediate experience of life in the "new economy"; and then frames a critical analysis of this experience, drawing out three themes: the relation of the economy to public and private life; inequality and discrimination; globalization. The critical framework calls for a historical dimension: how did we get here? It also points to a defining feature not only of the "new economy", but of the modern, capitalist economy since its origins: capitalism generates periodic crises within itself. The most obvious crisis is the "economic" one, but equally important are the crises of inequality and discrimination, and of environmental sustainability. The course concludes by considering what kind of economic order, what agents and institutions, would be required to transform capitalism into a socially and ecologically sustainable system. This course counts toward the Scientific Inquiry: Society and Culture requirement.

ECON 1030 Introduction to Micro and Macroeconomics (4 Credits)
The primary goal of this course is to introduce essential microeconomic and macroeconomic concepts to prepare economics majors and minors for their upper level economics courses. It achieves this goal (i) by separating and interrelating micro level (e.g., individual) and macro level (e.g., society) dynamics in the economy; (ii) by considering those dynamics within their historical context; and (iii) in the context to history of ideas in economics. The course also introduces analytical tools such as graphical and data analysis to demonstrate core ideas in micro and macroeconomic theories and policies. Prerequisite: ECON 1020.

ECON 1988 Study Abroad Resident Credit (0-18 Credits)

ECON 2020 Intermediate Microeconomics (4 Credits)
Microeconomic foundations to determine prices and production; consumer behavior, the behavior of firms in competitive and imperfectly competitive markets, and factor markets. Prerequisite: ECON 1030.

ECON 2030 Intermediate Macroeconomics (4 Credits)
Determinants of aggregate levels of production, employment and prices, focusing on the short-run dynamics of an economy consisting of a complex structure of interrelated markets; includes analysis of investment decisions, monetary structures and labor markets. Prerequisite: ECON 1030.

ECON 2050 History of Economic Thought (4 Credits)
Development of economic thought; leading writers and schools, their influence and theories. Prerequisite: ECON 1030.

ECON 2101 Urban Economic History Through Cinema (4 Credits)
We have recently passed the threshold where more than half of the population globally is living in urban areas. Perhaps more striking is that in 1850 only 3 cities (London, Beijing and Paris) had populations that exceeded a million people, while today there are over 300 such cities, with the largest city, Tokyo, having nearly 40 million inhabitants. Coincidentally, the growth in urban areas coincided with the emergence of cinema. In the popular imagination cities have been sites of both promise and terror and this has been well captured in movies since the early 20th century. This course will consider the economic cycle of cities from the early 20th century to the present as seen through film representations. While the films we will watch are works of art this is not a course on film appreciation. What we are interested in is how the emergence of large clusters of people living together in relatively small areas is being depicted over time. Furthermore, we want to understand how the economic arrangements that define these clusters, these cities, are documented and provide a new way of thinking about how humans decide to live and work in common spaces.

ECON 2190 Behavioral Economics (4 Credits)
Economics as a discipline often assumes people are rational and self-interested. Yet, when we look at the world around us, we see these assumptions violated, or at least they appear to be violated. In a course on Behavioral Economics, common economic assumptions are relaxed to allow for some behaviors that consistently appear in reality, such as over-optimism, procrastination, altruism, spite, ... that standard economic theory has difficulty explaining. In this course we will identify common "irrationals" in the lives of well-loved characters from literature or film, analyze our own behavior and that of the world around us, propose experiments to test for "anomalous" behaviors and their causes, design models to capture experimental findings, as well as discuss policies to encourage/discourage common human behaviors. We will also consider ways in which individuals, businesses, nonprofits, governments, …; can utilize the findings of Behavioral Economics (for better or for worse). Prerequisite: ECON 1030.

ECON 2250 Money & Banking (4 Credits)
This course familiarizes you with the basic principles of money, banking, balance sheets, financial instruments, financial institutions, and monetary policy. We examine alternative perspectives on a variety of issues such as the nature and origins of money, how money enters the economy, the role of banks and nonbank financial institutions in the creation of money, the relationship between banks, nonbank financial firms and the central bank, and financial crises. Additionally, we study the relation between monetary and fiscal and financial stabilization policies, and whether they are complementary or contradict each other. How these policies affect private sector balance sheets will be another topic of our course. We also study the evolution of the financial system including financial practices, instruments, institutions and how they impact and are impacted by regulation. We then use the principles of money and banking we learn this quarter to understand the role of banks in the recent 2008 Global Financial Crisis, as well as its broader causes and potential cures. Prerequisite: ECON 1030.

ECON 2280 Gender in the Economy (4 Credits)
This course moves beyond the traditionally male-dominated view of the economy to explore economic life through a gendered lens. A gendered perspective challenges us to see economic theory, markets, work, development, and policy in new ways. Gendered economic analysis expands the focus of economics from strictly wants, scarcity, and choice to include needs, abundance, and social provisioning in its scope. Cross listed with GWST 2280. Prerequisite: ECON 1020.
ECON 2300 Comparative Economic Systems (4 Credits)
The purpose of this course is to develop an understanding of the methods (both theoretical and empirical) used to compare economic systems around the world. As a learning objective, by the end of the course students should be able to explain the differences between economic, financial, and legal institutions, policies, and economic performance in alternative economic systems and to critically evaluate changes occurring in transition economies (particularly China, Russia, and Central and Eastern Europe) and their implications for economic growth. Prerequisite: ECON 1030.

ECON 2330 China and the Global Economy (4 Credits)
This course provides a comprehensive overview of the Chinese economy and China's role in the global economy. The course covers the economic interactions between China and the world economy over the past two centuries, evaluates ongoing social, economic and environmental challenges, and evaluates future development possibilities for China and the global economy as a whole. The topics addressed include: the Chinese economy before 1949; the socialist era, 1949-1978; economic reform and market transition; the role of state enterprises; foreign investment; foreign trade; China's role in the global imbalances; the impact of the recent global economic crisis. Prerequisite: ECON 1030.

ECON 2360 Economics, Ecology, and Social Welfare (4 Credits)
This course examines the interaction between economic outcomes, environmental effects, and inequality based on the contribution of alternative economic perspectives. It is divided in three core sections: Section I presents a historical examination of the restructuring of global capitalism under neoliberalism, and its impact on resource distribution and ecosystems. It follows a presentation of the theoretical differences between traditional and critical economics in the interpretation of these developments. Section II applies the concepts learned in Section I to specific case studies. For each of these case studies, the analysis will highlight both social and environmental implications and prospects for ecological sustainability and social welfare. Section III discusses alternative economic recommendations for socio-economic prosperity and ecological conservation. Prerequisite: ECON 1030.

ECON 2400 Public Finance (4 Credits)
Public-sector economics, including public finance and expenditures; effects of different types of taxes and various government programs; government budgeting; cost benefit analysis. Prerequisite: ECON 1030.

ECON 2410 Industrial Organization Economics (4 Credits)
This course explores some applied topics in microeconomic theory such as innovation and technological change; cost of production and decision making by firms; market structures and competition; labor market; the changing role of the state; antitrust; regulation and deregulation; and international trade. Prerequisite: ECON 1030.

ECON 2450 Race in the Economy (4 Credits)
This course examines economic life through a racial lens by exploring historical and contemporary experiences such as housing, employment, and wealth. A racial perspective challenges us to see economic theory, markets, work, and policy in new ways and highlights the necessity and the challenge of confronting white supremacy within a system of capitalism. Prerequisite: ECON 1020.

ECON 2500 Economic Development (4 Credits)
This course introduces the student to several dimensions of, and forces pertaining to, development processes, including nature's inequalities, colonial legacies, the role and limitations of primary production, labor utilization, industrialization, trade, technology acquisition, foreign direct investment and other forms of capital flow, and the role of the state. If time permits, discussion include environmental concerns and cultural factors. Prerequisite: ECON 1030.

ECON 2510 The Asian Economies (4 Credits)
This course is based on a comparative approach, examining several Asian economies' colonial background, their primary producing sectors, the developmental state in these countries, attempts at industrialization, trade policies, technological development, liberalization to attract foreign capital, currency and financial crises. Prerequisite: ECON 1030.

ECON 2540 Law and Economics (4 Credits)
This course provides an introduction to the study of law and economics, the objective being to provide a critical examination of the nexus between economics and law. After establishing foundational concepts and definitions the course turns to an investigation of legal history, traditions and movements. For example, this will include examination of common law and civil law (code), the progressive era, legal realism, critical legal studies, the law and economics movement, critical race theory, and law and neoliberalism. An assessment of distinct approaches to law and economics from different economic perspectives will also be undertaken. The latter half of the course covers the economic dimensions to various sources or core areas of law including property, contract, tort, administrative, criminal and constitutional law. Additionally, certain special topics will be introduced and analyzed throughout the course, including the social and legal construction of markets; public finance and the economic role of government; the legal foundations of money; and, environmental, international, family, public, corporate, competition and antitrust law. The course also offers exposure to hands-on and practical factors concerning the profession and practice of law including legal terminology, precedent, reasoning, case review, writing and procedure.

ECON 2600 International Finance (4 Credits)
The course covers history, institutions, and theory of international monetary relations. It encompasses topics such as balance-of-payments adjustment, exchange rates, international monetary arrangements, and foreign investment. Commencing with an introduction to national accounting and the balance of payments, the course provides a theoretical foundation for understanding exchange rate determination. Subsequently, it explores discussions surrounding floating and fixed exchange rate systems. The curriculum further delves into a concise history of international monetary relations spanning the last two centuries, including the Gold Standard and the Bretton Woods systems. Moreover, the course engages in a comprehensive examination of the role played by international capital flows and their global impacts. Finally, it concludes with an in-depth discussion on the role of international finance within contemporary global capitalism.
ECON 2610 International Economics (4 Credits)
The student learns about balance of payments, accounting, international monetary arrangements, international trade, and international investment. Certain policies that have a direct impact on a country’s balance of payments, e.g. macroeconomic policies, exchange rate policy, and commercial policies, are examined. Some features of recent US trade policy stances is also be surveyed. Prerequisite: ECON 1030.

ECON 2670 Quantitative Methods (4 Credits)
This course offers an introduction to empirical work and statistics relevant to the study of economics. The course begins with a discussion of the use and creation of data, and various sources of data. It then presents the basic foundations of statistical methods for the description and analysis of data. Students learn how to calculate common descriptive statistics, test hypotheses related to the mean and differences between means, and how to perform and interpret bivariate linear regression analysis. In the process, students learn and use a popular software package commonly used for statistical analysis in economics. Prerequisite: ECON 1030.

ECON 2701 Topics in Economics (4 Credits)
Specialized topics in Economics. Check with the Department of Economics or the Schedule of Classes for further information.

ECON 2710 Labor Economics (4 Credits)
Labor theory and institutions; theory of labor demand and supply including market models, demographics and education; the labor movement and legislation, industrial conciliation methods, and modern industrial relations. Prerequisite: ECON 1030.

ECON 2980 Internship (0 Credits)
This online course integrates first-hand labor market experience and career readiness with economic knowledge and skill building. Students will actively build their professional networks, complete internship hours, engage in professional development, and critically reflect on their labor market experience. Students are responsible for applying to and securing their own internships prior to registering for the course with support from the internship coordinator. Prerequisites: ECON 2020 or ECON 2030.

ECON 2988 Study Abroad Resident Credit (0-18 Credits)

ECON 3040 Marxian Political Economy (4 Credits)
An exposition of Marx’s theory of value through a detailed reading of Capital, vol. I. Excerpts from other readings by Marx, and some of the relevant secondary literature used. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3075 Marxism (4 Credits)
This course is a survey in the theoretical and political work influenced by the writings of 19th century philosopher and economist, Karl Marx. The course covers both the historical traditions in Marxism in the 19th, 20th, and 21st century as well as the geographical traditions of these time periods in France, Germany, England, Italy, Russia, China, and America. It is not necessary that students have a prior background in Marx’s work, but it is highly recommended. Requires junior standing or above. Cross listed with PHIL 3075.

ECON 3110 European Economic History (4 Credits)
The emergence of capitalism from feudal society; the Industrial Revolution, English capitalism; European industrialization; state and economy in capitalism; 20th-century Europe and the global economy. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3460 Monetary Theory and Policy (4 Credits)
Studies the interaction between money and the economy. Examines the workings of the financial institutions and how they affect the economy. Looks at the questions of what serves as money, what determines interest rates, and how the central bank conducts monetary policy and its effect on the performance of the economy. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3480 Money & Financial Markets (4 Credits)
Examines workings of the money and financial markets and their relation to the monetary system and to the macroeconomy. Restriction: junior standing. Prerequisite: ECON 2020 or ECON 2030.

ECON 3500 Economic Development (4 Credits)
Careful re-examination of the works of the prominent development economists of the immediate postwar decades to critically shed light on the treatment of topical development problems by modern economists. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3590 Urban Economics (4 Credits)
Covers topics and issues of economic growth and decline in metropolitan areas, emphasizing urban economic issues. A broad range of policy areas is discussed, including labor market policy, welfare reform, housing policy, racial segregation, transportation, and environmental policy, among others. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3600 International Monetary Relations (4 Credits)
Theory, policy, and history of international organization of money and finance; open-economy macroeconomics: balance of payments, exchange rate dynamics, monetary policy effectiveness. Cross-listed with INTS 3600. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3610 International Trade Theory & Policy (4 Credits)
Examines topical trade issues confronting the United States, policies proposed to tackle them, and the theoretical underpinnings of these policies. Studies how those policies could affect the less developed countries as determined by the environment established under the World Trade Organization. Prerequisite: ECON 2020 or 2030. Recommended: ECON 2610.
ECON 3620 Philosophical Perspectives on Economics and Social Sciences (4 Credits)
This course provides an advanced survey of conceptual and methodological issues that lie at the intersection of philosophy, economics, and the social sciences. More specifically, the main goal is to engage in a critical discussion of how sciences such as psychology, sociology, and neuroscience can challenge and modify the foundations and methodology of economic theories. The course is structured around three broad modules. After a brief introduction, we begin by discussing the emergence of rational choice theory which constitutes the foundation of classical and neoclassical economics and present some paradoxical implications of expected utility theory. The second module focuses on the relationship between economics and psychology. More specifically, we examine the emergence of behavioral economics, the study of the social, cognitive, and emotional factors on the economic decisions of individuals and institutions and their consequences for market prices, returns, and resource allocation. Finally, the third module focuses on the implications of neuroscience on decision making. We discuss some recent developments in neuroeconomics, a field of study emerged over the last few decades which seeks to ground economic theory in the study of neural mechanisms which are expressed mathematically and make behavioral predictions.

ECON 3670 Econometrics: Multivariate Regression Analysis for Economists (4 Credits)
This course develops the foundations of ordinary least squares (OLS) regression analysis and teaches students how to specify, estimate, and interpret multivariate regression models. Students have to apply what they have learned using a popular software package used for econometrics and real data. Special topics also covered include regression models that include dummy variables, log-linear models, fixed effects models, a brief discussion of instrumental variables, and an introduction to time-series analysis and forecasting. Prerequisites: ECON 2670. Cross-listed with ECON 4670.

ECON 3701 Topics in Economics (4 Credits)
Specialized topics in Economics. Check with the Department of Economics or the Schedule of Classes for further information.

ECON 3740 Health Economics (4 Credits)
This course is designed to study the nature of the organization of health care production, delivery and utilization according to economic theory. It introduces the up-to-date problems and issues in the U.S. health care system by studying demand for and supply of health care services, health care production and costs, and market analysis of health care industry. Important parties playing roles in health care industry such as private health insurance firms, physicians, pharmaceutical industry, and hospital services will be studied in detail. In addition, the course deals with the role of government in health care industry and various health care reforms proposed in the U.S. Restriction: junior standing. Prerequisite: ECON 2020 or 2030.

ECON 3830 Topics in Macroeconomics (4 Credits)
Coverage varies but may include advanced topics in monetary theory, the study of business cycles, or the works of important monetary and macroeconomic theorists. Restriction: junior standing. Prerequisite: ECON 2030.

ECON 3850 Mathematics for Economists (4 Credits)
The frontier of the research in modern mainstream economics relies on the modeling of economic phenomena, which requires increasingly sophisticated mathematical tools. The purpose of this course is to introduce these tools to early graduate students and advanced undergraduates, particularly those interested in pursuing graduate studies in economics. While this is primarily a math course that covers topics from linear algebra, multivariate calculus, and constrained optimization, economic applications will be used to provide intuition. This course provides a solid foundation in mathematical economics as well as a glimpse of the kind of work that is currently being done in the field. For graduate students, the course will provide the necessary mathematical background for ECON 4030 and Econ 4020. Prerequisite: ECON 2020 and 2670.

ECON 3900 Growth, Technology and Economic Policy (4 Credits)
This course will introduce students to innovation dynamics – technological change as the foundation for the growth of and structural changes in economic activity - through the lenses of 1) economic theory, as evolutionary economics, in particular original institutional economics and neo-Schumpeterian economics, as well as Marxian themes around dynamics of change in economies and societies; 2) economic history, to further underline the nature of innovation as a social phenomenon that has impacted technological capability and economic activity, in scope, reach, and level, in societies as well as societies themselves; and 3) economic policy, to emphasize focus areas for the successful support of innovation, and desired innovation, with examples drawing from the economic development process as well as national innovation systems concepts and the role of the public sector as an active participant in economic activity in general. The focus for the course under all three perspectives will be on changes to technological capability, from a social perspective that emphasizes systemic components in the processes of innovating and change. Prerequisite: ECON 2050.

ECON 3970 Environmental Economics (4 Credits)
This course examines economic perspectives of environmental and resource problems, ranging from peak oil, food crisis, and climate change. Topics include the property-rights basis of polluting problems, environmental ethics, benefit-cost analysis, regulatory policy, incentive-based regulation, clean technology, population growth and consumption, and sustainable development. Restriction: junior standing. Prerequisite: ECON 2020.

ECON 3988 Study Abroad Resident Credit (0-18 Credits)

ECON 3990 Capstone: Research, Evaluate, and Report on Living in CO (2 Credits)
Gather and evaluate data to share the diverse economic experiences of all Coloradans. Collectively write and present an economic report. Engage with Colorado policymakers and policy advocates to explore how research informs policy and to enhance understanding of policymaking and outcomes throughout Colorado.

ECON 3991 Independent Study (1-8 Credits)
Prerequisites: ECON 1030.
ECON 3995 Independent Research (1-4 Credits)
This research project is based on a topic that the student picks in consultation with the chair of the economics department. During the consultation process a faculty supervisor is assigned to work with the student throughout the research process. The topic is preferably one that requires the student to demonstrate her/his ability to apply what he/she has learned in the intermediate-level required courses for the economics major. Restriction: senior standing.

ECON 3997 Economics Honors Thesis (4 Credits)
Students pursuing Departmental Distinction will write an Economics Honors Thesis of between 30 and 50 pages during their senior year. The subject of the Thesis must concern some important topic in Economics, the precise nature of which will be determined by the student and an advisor chosen from among the Economics faculty. A student wanting to try for this Distinction must first meet with the Department Chair to discuss which Professor he or she will request to supervise his or her Thesis. The Professor who agrees to supervise an Honors Thesis is responsible for certifying that the work is of sufficient quality for Departmental Distinction in Economics.