DEPARTMENT OF ECONOMICS  
COURSE OFFERINGS  
SPRING 2020

ECON2206 Real Estate and Urban Action  
Neil McCullagh

*The only prerequisite is an interest in any facet of real estate and urban action. Given the multidisciplinary tasks required to create viable communities, students from all schools at Boston College are welcomed to participate.*

Real Estate and Urban Action is a class in which students explore the interdisciplinary fields that are engaged in neighborhood revitalization. The course uses the transformation of the failed Columbia Point housing project (Dorchester, MA) into Harbor Point, a successful mixed income neighborhood, as a core teaching case study, highlighting how successful redevelopment addresses the social and economic needs of community residents. Classes include guest lectures from developers, public planning officials, and supportive services experts on the social, cultural, and political factors critical to transforming distressed neighborhoods into safe and economically viable neighborhoods. It is a practical course, in which students gain experience through field trips and interactions with real estate and supportive services professionals, culminating in a team neighborhood transformation proposal.

ECON2209 Sports Economics  
Martin Konan

*Prerequisites: ECON1131 or ECON1101, ECON1151*

This course will develop fundamental economic concepts in the context of the sports industry. Students will apply economic theory to various aspects of both collegiate and professional sports. Topics include (but are not limited to) wage discrimination in sports, alumni giving and collegiate athletics, academics and collegiate athletics, sports rights and broadcasting, sports and gambling, salary caps, revenue sharing, insurance contracts, expansion and stadium/arena financing.

ECON2211 Math for Economic Analysis  
Bruce Watson

*Prerequisites: ECON1131 or ECON1101*

Assuming only high school algebra, the course develops all of the main mathematical tools used in modern economics. Students will learn the skills necessary to do well in subsequent economics courses, such as Micro Theory (ECON2201) and Macro Theory (ECON2202), as well as advanced electives, such as Game Theory in Economics (ECON3308) and Financial Economics (ECON3379). Those who have completed Multivariate Calculus (MATH2202) should not take this course. Beginning with applications of standard algebra to economics, the course looks at partial and general equilibrium and comparative statics. Topics subsequently explored include introductory linear algebra (matrices and vectors), and applications of univariate (single-variable) calculus to economics. Multivariate calculus is covered next, with applications to consumer theory and the theory of the firm. Finally, unconstrained and constrained optimization is covered, including techniques such as the Lagrange multiplier and Jacobian matrices. Applications and examples are drawn from practical problems in economics and business. Throughout the course, an emphasis is placed on combining intuition with rigor—the math is used to provide a more rigorous analysis of the intuitive understanding students acquired in their principles of economics courses.

#Enrollment limited; significant writing/research component.

+Fulfills cultural diversity core requirement.

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ECON2212 Geographic Info Systems for Planning and Decision  
Will Cohen  
Prerequisites: ECON1131 or ECON1101  
Large quantities of information are available to describe our social and physical environment with high detail, but making sense of this data requires specialized skill sets. Geographic Information Systems (GIS) is a general approach to analysis and is a powerful set of tools for understanding complex problems or for making a compelling argument about issues grounded in the physical or social environment. It is widely used in the public and private sectors. This course will introduce students to the use of GIS and representation as a means of looking at and representing spatial data. Students will learn how to perform the three broad steps of spatial analysis: 1) collecting and organizing data, 2) analyzing this data for appropriate patterns, and 3) using software to represent data on maps to support decision making.

ECON2213 Economics of Health Policy  
Samuel Richardson  
Prerequisites: ECON1131 or ECON1101  
This course builds on fundamental concepts from Principles to apply economic reasoning to health policy issues. We will develop some tools for thinking critically about health economics data, and then delve into the history and institutional details of health policy in the United States. The rest of the course is devoted to the economics behind a variety of health policy questions: how could policymakers use cost-effectiveness analysis when deciding whether to adopt new health care technology? How can the economics of externalities inform policies around vaccination? Why do we give patents to pharmaceutical companies when we know that monopolies create deadweight loss? Why do economists oppose the tax deduction for employer-sponsored health insurance plans? How did Obamacare’s individual health insurance mandate affect insurance markets, and what should we expect now that the mandate has been repealed? How can information asymmetries result in low-quality health care? Why does the United States spend so much more than other countries on health care, and what do we gain from that additional spending?

ECON2229 Economic and Business Forecasting  
Richard McGowan, S.J.  
Prerequisites: ECON1151, MATH1100  
Course is open only to economics majors, economics minors, and CSOM economic concentrators.  
The theory and practice of applied time series analysis will be explored. First the different segments (trend, seasonality, cyclical, and irregular) of a time series will be analyzed by examining the Autocorrelation functions (ACF) and Partial Autocorrelation functions (PACF). The specifics model to model the various types of time series include linear regression, panel regression, seasonal decomposition, exponential smoothing, ARIMA modeling as well as combining models. This course is offered as an online hybrid course. In addition to the online lectures presented on the Canvas LMS, there are three required on-campus class meetings on Saturday mornings. Please see the course syllabus for additional details.

ECON2242 Public Policy in an Aging Society  
Joe Quinn  
Prerequisites: ECON1131 or ECON1101  
We live in a rapidly aging nation. In two decades, the age distribution of the US will look like that of Florida today. We will analyze the underlying demographic trends, the economic status of the aged, the fiscal challenge of an aging society, public policies (especially social insurance) designed to assist older Americans, the impact of public policy on individual behavior, and proposals for reform.
ECON2273+ Development Economics
Prerequisites: ECON1131, ECON1132, or ECON1101, ECON1151
Not open to students who have completed ECON3374 or ECON3375. Fulfills cultural diversity core requirement.
This course considers what we know about developing countries, and applies economic theory to help us understand the constraints of poverty. We will describe the economies of less developed countries and the lives of the poor, focusing on changes in poverty, inequality, demography, and health. We will consider theories and evidence for why some countries are rich and others poor. We will examine how land, labor, and credit markets function in poor countries and communities, and the consequences for health, education, and child labor. We will consider migration and its consequences and will discuss aid and international institutions. Satisfies Core requirement for: Cultural Diversity

ECON2278 Environmental Economics
Prerequisites: ECON1131 or ECON1101
The course will examine different aspects of natural resource allocation and the protection of environmental quality from an economic standpoint, including: specific areas of market failure, the allocation of public goods, the estimation of non-market values, public policy avenues for influencing natural resource management, and ethical issues in natural resource management.

-------------------------------------- Upper Level Electives --------------------------------------

ECON3303 Economics of the Family
Prerequisites: ECON2201 or ECON2203, ECON2228
This course introduces models of family behavior and empirical evidence related to two broad topics: 1. economic causes and consequences of changes in the organization of families and 2. the effect of policies that target families/children. The course will provide a solid background in economic models of family formation and dissolution, household specialization and decision-making, and fertility decisions. Student participation will be an integral part of the course. During class, students will be required to evaluate data and relate it to the theoretical models covered. Student participation will also include two in-class oral presentations.

ECON3305 Market Design
Prerequisites: ECON2201 or ECON2203, ECON1151
This is an introductory-level course on market design. It aims to provide students with fundamental concepts of matching and allocation problems without money as well as auctions. The focus of the course is both introducing students to the market design theory as well as exploring real-life applications such as on-campus housing, school choice, kidney exchange, search engine auctions, and spectrum auctions. Some knowledge of statistics and calculus is required for the theoretical part. Students will be required to write a final paper and do an in-class presentation.

ECON3306 Economics of Education
Prerequisites: ECON2201 or ECON2203, ECON2228
This course combines economic theory, econometric literature, and institutional literature to examine current issues in U.S. education. Topics include: The basic theory of investments in education (human capital theory); disentangling the return to education from the return to innate ability; the role of education in individual mobility and national economic growth; the association between education and individual earnings and reasons why that relationship has changed over time; the role of early childhood education; the main approaches to K-12 school reform (money, choice, educational standards, and

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teacher selection/training); higher education and higher education policy. We will also discuss teacher assessment methods, computers in education, and the effectiveness of different teaching methods.

ECON3308 Game Theory in Economics

Vera Sharunova

Prerequisites: ECON2201 or ECON2203

This course is an introduction to game theory. Game theory analyzes strategic situations between people, that is, situations in which the well-being of one agent depends not only on her actions, but also on what other agents do. Hence, in deciding how best to act, each person needs to predict how others may react to their actions. Game theory provides a framework to make such predictions, and as a result has become a widely used tool of analysis in a range of disciplines, including economics, business, political science, law, and international relations.

ECON3312 Evolutionary Economics

Donald Cox

Prerequisites: ECON2201 or ECON2203, ECON2228

The course uses evolutionary biology to better understand the psychology of preferences, a central concept in economics. Why are people risk averse? Impatient? What explains novelty-seeking habits, addictions? What makes parents provide for children? We will use evolutionary thinking to explore these and a host of other diverse topics: violence, adolescent risk taking, sexual behavior, mating preferences, marriage and divorce, rearing and investing in children, extended families, trade and specialization, cooperation and conflict, cults and gangs, religion, and interactions between genetic and cultural forces. This course has an intensive research and writing requirement and enrollment is limited. Prerequisites: Micro theory and econometrics. You should be comfortable using Stata.

ECON3317 Economics of Inequality

Geoffrey Sanzenbacher

Prerequisites: ECON2201 or ECON2203, ECON2228

The course will provide both a theoretical and empirical analysis of economic inequality. The course will include analysis and discussion of recent trends in inequality and an examination of the economic causes and consequences of inequality. Specific attention will be paid to the difference between inequality of economic outcomes (e.g., employment status, earnings, and wealth) and inequality of economic opportunity. The course will also touch on economic policy, including discussions of programs designed to combat inequality of outcomes, like TANF and food stamps, as well as those designed to combat inequality of opportunity, like Head Start or Moving to Opportunity.

ECON3323 Topics in Monetary Economics

Christopher McHugh

Prerequisites: ECON2202 or ECON2204, ECON2228, ECON3361

This course covers current topics in monetary and macroeconomics with emphasis on monetary policy tools developed and widely implemented or discussed in academic circles in the post-2008 period. Major topics are the new scope and role of banking, the evolution of short term target interest rates, unconventional policy tools notably quantitative easing, asset prices as policy target, macroprudential supervision, communication/forward guidance as policy tool and the conveying of policy to financial markets under constant anticipation. Special topics include negative interest rates, Modern Monetary Theory, helicopter money, price level targeting, nominal GDP targeting, international policy coordination, and repo/reverse repo markets. The course will include both theoretical and empirical analysis. Empirical analysis will focus on the United States but the history and policy of nations including the United Kingdom, Japan, and Eurozone will also be covered. Readings will be drawn largely from central bank and similar policy institute sources.

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ECON3324 Money and Financial Markets  
Hossein Kazemi  
Prerequisites: ECON2202 or ECON2204  
Not open to students who have completed or are currently taking ECON3361. This course covers topics such as the significance and multiple functions of money in the economy, the behavior of interest rates, the banking system, financial markets, and the management of financial institutions. This course further covers the Federal Reserve System and the conduct of monetary policy, different asset classes, the foreign exchange market, and the international financial system. There is a heavy emphasis on use of market data and the analysis of economic releases—earnings reports, government policy statements, etc.—to provide a comprehensive introduction to the subject. Moreover, through an extensive use of Bloomberg in this class students learn how to access and analyze data and economic releases to provide a window into how modern practitioners in the discipline analyze financial markets.

ECON3327 Financial Econometrics  
Geoffrey Sanzenbacher  
Prerequisites: ECON2228, MATH1100  
This course extends ECON2228 to present panel data models, selected topics in time series analysis, and limited dependent variable models. Methods used in financial econometrics, such as rolling CAPM estimation, volatility estimation, and event studies will be stressed. Examples and datasets are drawn from financial economics.

ECON3338 Law and Economics  
Andrew Copland  
Prerequisites: ECON2201 or ECON2203  
In this course we utilize microeconomic analysis to evaluate the “performance” of legal institutions, with particular attention to the issue of economic efficiency. We will focus on questions in the common law fields of property, torts, and contracts (and in the theory and practice of criminal law if time permits).

ECON3340# Labor Economics  
Mark Kazarosian  
Prerequisites: ECON2201 or ECON2203, ECON2228  
This course will introduce students to the methodology of labor economics from both institutional and neoclassical perspectives. The principal emphasis will be on neoclassical theory and empirical work dealing with the supply and demand for labor; the operation of the labor market; the determination of wages; and the impact of trade unions and collective bargaining. Special emphasis will be placed on applications of theory and empirical findings to policy questions.

ECON3356 Industrial Organization for Business Decisions  
Michael Grubb  
Prerequisites: ECON2201 or ECON2203  
We study the behavior of firms and the structure of industries, applying game theory to understand the strategic interaction of firms when the assumptions of perfect competition break down. The course combines theoretical micro-economic analyses with studies of actual firm behavior in individual industries. Topics include pricing, game theory, collusion, outsourcing, auctions, and adverse selection. The course will incorporate insights from developments in behavioral economics and consider regulation for consumer protection.

ECON3361 Monetary Theory & Policy  
Hossein Kazemi  
Prerequisites: ECON2202 or ECON2204, ECON2228

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This course is an analysis of how the operation and behavior of financial markets are influenced by monetary policy, the actions taken by the Federal Reserve (the Fed) to promote full employment, price stability, and moderate long-term interest rates. Emphasis is placed on studying the interaction between financial intermediaries (e.g. commercial banks, investment banks, mutual funds, hedge funds, etc.) and a nation’s central bank. Students are introduced to the modern theories of the demand for and supply of money, as well as their implications for economic activity, the cost of living, employment, and the conduct of monetary policy. Particular emphasis is given to recent Fed policy, including Quantitative Easing and Quantitative Tightening and the impact of these policies on asset prices and long-term interest rates. Furthermore, through an extensive use of Bloomberg in this class students learn how to analyze the impact of these and other Fed policies on the U.S. economy and financial markets to provide a window into how modern practitioners in the discipline follow and respond to changes in U.S. monetary policy.

**ECON3363# Micro Public Policy Issues**  
**Prerequisites:** ECON2201 or ECON2203  
Joseph Quinn  
This is a seminar on the economic analysis of current microeconomic public policy issues. During the first half of the course, students will read and discuss articles on selected topics (from the syllabus), and prepare first drafts of papers on topics of their own choice. The second half of the course will be run like a professional economics conference. Students will read and critique others' papers, present their own drafts to the class, and then revise their own papers on the basis of the comments received.

**ECON3365 Public Finance**  
**Prerequisites:** ECON2201 or ECON2203, may be taken concurrently  
Christopher McHugh  
This is a course in the microeconomics of the public sector. We will discuss the rationale for the government's role in a market economy, major expenditure programs, and the theory and structure of the tax system. The focus will be on the federal (as opposed to state and local) government's expenditure and tax programs, with special attention given to topics of current concern.

**ECON3367 American Economic Policy**  
**Prerequisites:** ECON2201 or ECON2203, ECON2202 or ECON2204  
Nancy Kimelman  
This course allows students the opportunity to apply macroeconomic and microeconomic techniques and models to issues of current importance. Although the choice of topics is based on the interests of the students present, typically the course covers the economic effects of immigration, changes in the minimum wage, negative interest rate policies, fiscal challenges of the federal government, Social Security reform, income inequality, and trade.

**ECON3369 Economics of Sports**  
**Prerequisites:** ECON2201 or ECON2203, ECON2228  
Charlie Murry  
Students will gain a deeper understanding of how various markets are organized in sports industries and the economics of decision making in sports contexts. Topics to be covered include price discrimination, dynamic pricing in secondary goods markets, labor market power, the value of player talent, competitive balance, league power and antitrust, and the application of game theory to sports.

**ECON3372 International Finance**  
**Prerequisites:** ECON2202 or ECON2204, ECON2228  
Bruce Watson  
International financial markets, international trade and balance of payments issues will be studied by using analytical models of the open economy. Topics of particular interests are exchange rate determination, capital flows, trade flows, and other international linkages between economies.

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course will apply the analytical tools of international economics to address macroeconomic aspects of current policy issues such as the global impact of the financial crisis, exchange rate policy, sovereign debt crises, and persistent trade deficits and international indebtedness.

ECON3375 Stone Tools/Robots: Economic Growth & Development  Pablo Guerron  
**Prerequisites:** ECON 1151, ECON2202 or ECON2204  
This course introduces students to Economic Growth. Our starting point is the question of why societies did not experience economic growth for most of human history. Indeed, growth is a very recent economic concept dating back to the XIX century. We will then study what drives growth. Examples include the introduction of electricity, telephone, and airplanes. In general, we will study how technology, capital accumulation, human capital, and innovation helped humanity to increase its well being. Finally, we will cover the impact of growth on our lives. For example, how life expectancy has changed over the past century.

ECON3376 International Economic Relations  Jim Anderson  
**Prerequisites:** ECON 2201 or ECON2203, ECON2202 or ECON2204  
This course introduces the study of economic relations among countries. It combines material contained in ECON3371 and ECON3372, and substitutes for both those courses. Primarily designed for international studies majors, it is also appropriate for economics and other social science majors, with the proviso that the comprehensive coverage of the course implies that the workload is heavy and expectations for students are high. Topics include the determinants of trade in goods, services, and capital; the economic policies that nations use to influence such trade; the theory and practice of international macroeconomics; and problems of coordinating macroeconomic policies among countries. The course features the usefulness (and limitations) of game theory for explaining international economic interactions.

ECON3379 Financial Economics  Peter Ireland  
**Prerequisites:** ECON2201 or ECON2203; ECON2228  
This undergraduate elective focuses on financial economics, with specific emphasis on asset pricing and the valuation of risky cash flows. After developing and studying the details of consumer decision-making under uncertainty, it uses that general framework as a basis for understanding both equilibrium and no-arbitrage theories of securities pricing, including traditional models like the capital asset pricing model (CAPM), newer Arrow-Debreu theories, and, if time permits, the arbitrage pricing theory (APT), the consumption capital asset pricing model (CCAPM), and martingale pricing methods.

ECON3389 Machine Learning for Economics  Anatoly Arlashin  
**Prerequisites:** ECON1151  
Large scale data sets ("big data") become ubiquitous across many applied areas. The goal of this course is to provide an introduction to methods that allow to deal with this situation. We focus on statistical learning techniques and high-dimensional statistics, and show how they can be applied in economics and business administration.

ECON3390 Applied Health Economics  Samuel Richardson  
**Prerequisites:** ECON2201 OR ECON2203 and ECON2228  
A perennial health policy debate concerns the proper role of government in the allocation of health care. The first fundamental theorem of welfare economics states that (under certain assumptions) markets result in efficient allocations, so one might expect most economists favor minimal government

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involvement in allocating health care. We will begin by studying economic theories about why health care markets may be inefficient, along with the empirical evidence regarding those theories. As the course progresses, our emphasis will shift: in groups, students will use publicly-available data to write and present a research paper investigating a policy-relevant health economics question.

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