ECONOMICS (ECON)

ECON 1013 (b)   The Moral Economy
Stephen Meardon.
Non-Standard Rotation. Fall 2024. Enrollment limit: 16.

An examination of the moral questions arising from economic analysis during the industrial revolution. Readings include original texts by Adam Smith, Karl Marx, and Henry George, and historical treatments of their lives and circumstances; also the late nineteenth century fictional treatment of novelist and editor William Dean Howells. The authors' rhetorical strategies as well as their moral premises and political-economic ideas will be studied.

Previous terms offered: Fall 2022, Fall 2020.

ECON 1018 (b)   The Art of the Deal: Commerce and Culture
Non-Standard Rotation. Enrollment limit: 16.

Explores the economics of culture, including the analysis of markets for art, music, literature, and movies. If culture is priceless, then why do artists starve while providers of pet food make billions? Why are paintings by dead artists generally worth more than paintings by living artists? Could music piracy on the information superhighway benefit society? Can Tom Hanks turn a terrible movie into a contender at the box office? Students are not required to have any prior knowledge of economics, and will not be allowed to argue that baseball comprises culture.

Previous terms offered: Fall 2023, Fall 2022, Fall 2020.

ECON 1050 (b, MCSR)   Principles of Microeconomics and Quantitative Reasoning
Guillermo Herrera.
Non-Standard Rotation. Spring 2025. Enrollment limit: 35.

A quantitative reasoning supported introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. Covers the same content as Economics 1101 with added instruction in the quantitative skills used in modern microeconomics, providing a firm foundation for further coursework in economics. Students desiring a comprehensive introduction to economic reasoning should take both this course (or Economics 1101) and 1102 . To ensure proper placement, students must fill out economics department placement form and must be recommended for placement in Economics 1050. Not open to students who have taken Economics 1101.

Prerequisites: MATH 1050 or Placement in ECON 1050.

Previous terms offered: Spring 2024, Spring 2023, Spring 2022, Spring 2021.

ECON 1082 (b)   Economic Literacy
Non-Standard Rotation. Enrollment limit: 50.

A nontechnical introduction to the operation of modern capitalist economies, with a focus on the US. The course is intended to provide a level of economic literacy adequate to understand economic policy debates as conducted in the popular press. The emphasis is on using a small number of fundamental concepts to clarify how economies function, and to provide a foundation for informed evaluation of competing economic policy agendas. Topics include incentives; decision-making; markets as a means of allocating resources; characteristics of market allocation; measures and history of US economic performance; international trade, finance, and globalization; and structure and function of the monetary and financial systems. Throughout the course, discussion will address alternative perspectives on the appropriate role of government in the economy. Not open to students who have credit for Economics 1050, 1101, or 1102. Does not satisfy the prerequisite for any other course in economics. (NOTE: this course was previously offered as Economics 100 Introduction to the Economy)

Previous terms offered: Spring 2021.

ECON 1099 (b, DPI, MCSR)   Using "Big Data" to Investigate and Suggest Solutions to Economic and Social Problems
Erik Nelson.
Non-Standard Rotation. Fall 2024. Enrollment limit: 20.

Students will use "big data" to understand and address some of the most important social and economic problems of our time. The course will give students an introduction to cutting edge research and policy applications in economics in a non-technical manner that does not require prior coursework in economics or statistics, making it suitable both for students exploring economics for the first time, and for more advanced students who are interested in the class's topics. Social and economic problems that we will cover include equality of opportunity, education, racial disparities, criminal justice, labor market participation, entrepreneurship, health care and public health, the opioid crisis, climate change, and environmental justice. In the context of these topics, the course will also provide an introduction to basic methods in data science, including regression, causal inference, and machine learning. Students will use software packages R, Stata, Arc GIS, and Excel. (Same as: DCS 1209)

Previous terms offered: Fall 2022.

ECON 1101 (b, MCSR)   Principles of Microeconomics
Jessica LaVoice; Zorina Khan; Guillermo Herrera; Daniel Stone.
Every Semester. Fall 2024; Spring 2025. Enrollment limit: 35.

An introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. The theory of demand, supply, cost, and market structure is developed and then applied to problems in antitrust policy, environmental quality, energy, education, health, the role of the corporation in society, income distribution, and poverty. Students desiring a comprehensive introduction to economic reasoning should take both Economics 1101 and 1102 . For proper placement students should fill out the economics placement request form and must be recommended for placement in Economics 1101. Not open to students who have taken Economics 1050.

Prerequisites: MATH 1050 or Placement in ECON 1101.

Previous terms offered: Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020.

ECON 1102 (b, MCSR)   Principles of Macroeconomics
Duman B-Rad; Tatyana Avilova; Stephen Meardon; Mahdi Kahou.
Every Semester. Fall 2024; Spring 2025. Enrollment limit: 35.

An introduction to economic analysis and institutions, with special emphasis on determinants of the level of national income, prices, and employment. Current problems of inflation and unemployment are explored with the aid of such analysis, and alternative views of the effectiveness of fiscal, monetary, and other governmental policies are analyzed. Attention is given to the sources and consequences of economic growth and to the nature and significance of international linkages through goods and capital markets.

Prerequisites: ECON 1050 or ECON 1101 or Placement in ECON 1102 or Placement in earned ECON 1101.

Previous terms offered: Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020.

ECON 1181 (MCSR)   The Physics and Economics of Energy
Mark Battle; Guillermo Herrera.
Non-Standard Rotation. Spring 2025. Enrollment limit: 50.

Energy is both a physical phenomenon and a key driver of human production and consumption. This course develops basic concepts in physics of energy (conservation of energy, conversion from one form to another, increasing entropy, etc.) and economic issues (role of energy in production functions; extraction, storage, and transmission; industrial structure and protectionism; etc.). The course explores these concepts using different forms of energy (fossil fuels of different kinds, solar, hydropower, wind, nuclear, and others). A large focus is on the environmental aspects of energy use: science and economics of risks and effects outside of energy markets, per se. In light of these environmental effects, we also consider the science and economics of different government policies. (Same as: ENVS 2118, PHYS 1181)

Prerequisites: Two of: either ECON 1050 or ECON 1101 or ECON 1102 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and PHYS 1130 or Placement in PHYS 1140.

ECON 2001 (b)   Economic Policy
Gregory DeCoster; Rachel Childers.
Every Year. Fall 2024; Spring 2025. Enrollment limit: 35.

Economic analysis can bring clarity to confused and contentious policy debates. Focuses on using economic analysis to anticipate the potential consequences of implementing major policy proposals, including those relating to globalization, international trade and finance, inequality of income and wealth, economic growth and development, the financial system, the government budget and debt, price stability and employment, and the environment.

Prerequisites: ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2024, Fall 2022, Spring 2022, Fall 2020.

ECON 2020 (b, MCSR)   The Economics of Art and Culture
Non-Standard Rotation. Enrollment limit: 20.

Cultural economics analyzes markets in art, literature, music, sports, and movies. The course will apply economic concepts and methods to evaluate cultural goods that many regard as "priceless." Topics will include valuations and black markets in art, the role of superstars in the success of films and music, the impact of Taylor Swift on the economy, nonfungible tokens and artificial intelligence in art markets, whether museums may be viewed as firms, the funding of arts and culture, and the extent to which high-profile sports events such as the FIFA Soccer World Cup benefit the host country. Students will engage closely with the Bowdoin College Museum of Art, and participate in investment simulations in movie and actor-based securities on the online Hollywood Stock Exchange. This course is not open to students who have taken ECON 1018.

Prerequisites: ECON 1101.

Previous terms offered: Spring 2024.

ECON 2030 (b, IP)   The Economic Development of Japan
Tatyana Avilova.
Non-Standard Rotation. Spring 2025. Enrollment limit: 35.

This course explores key elements and the evolution of the Japanese economy from the sixteenth century to the modern era. Using the lens of economic theory and empirical evidence, the class analyzes key events and economic developments, including features of the economy under the Tokugawa Shogunate, the opening and modernization of the Japanese economy in the late nineteenth century, imperial expansion, World War II, post-war economic recovery, and recent economic conditions. Special emphasis is placed on Japanese policymaking as well as on the behavior of Japanese enterprises, financial institutions, workers, and households. Concurrent enrollment in ECON 1102 is not permitted. (Same as: ASNS 2312)

Prerequisites: Two of: either ECON 1050 or ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in ECON 2000 Level.

ECON 2201 (b, IP, MCSR)   International Economics
Every Other Year. Enrollment limit: 35.

Explores classical and modern theories of international trade and international finance and applies them to contemporary in the global marketplace. Considers policy implications of both trade and the regulation of trade on topics including financial gains from trade, balance of payments, international monetary regimes, and exchange rate policies.

Prerequisites: Two of: either ECON 1101 or ECON 1050 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2022.

ECON 2213 (b)   History of Economic Thought
Non-Standard Rotation. Enrollment limit: 35.

A historical study of insights and methods of inquiry into the functions of markets and the role of government in shaping them. Readings include the original works of economic thinkers from the eighteenth to twentieth centuries, including Adam Smith, David Ricardo, Henry Carey, Karl Marx, Henry George, Thorstein Veblen, and John Maynard Keynes, among others. Different historiographical approaches are employed, including examination of the problems motivating past thinkers as well as the relevance of their ideas to modern economics.

Prerequisites: Two of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level.

Previous terms offered: Fall 2023, Fall 2021.

ECON 2218 (b, MCSR)   Environmental Economics and Policy
Non-Standard Rotation. Enrollment limit: 35.

An exploration of environmental degradation and public policy responses in industrial economies. Market failures, property rights, and materialistic values are investigated as causes of pollution and deteriorating ecosystem functions. Guidelines for equitable and cost-effective environmental policy are explored, with an emphasis on the roles and limitations of cost-benefit analysis and techniques for estimating non-monetary values. Three core themes are the transition from "command and control" to incentive-based policies; the evolution from piecemeal regulation to comprehensive "green plans" (as in the Netherlands); and the connections among air pollution, energy systems, and global warming. (Same as: ENVS 2302)

Prerequisites: ECON 1050 or ECON 1101 or Placement in ECON 1102 or Placement in earned ECON 1101 or Placement in ECON 2000 Level.

Previous terms offered: Fall 2023, Spring 2021.

ECON 2221 (b, MCSR)   Marxian Political Economy
Non-Standard Rotation. Enrollment limit: 35.

An examination of Karl Marx's method of analysis of capitalist market economies, focusing on the interconnected roles played by market relations, class/power relations, exploitation, and internal tendencies towards growth, crisis, and qualitative change. Students are introduced to Marxian method and economic theory through the original works of Marx, including Volume I of "Capital," and secondary works of contemporary and later critics. Historical and biographical sources are studied to illuminate Marx's inspirations and motives. Subsequently, applications of the Marxian framework to the modern capitalist economy are considered critically, with an emphasis on the secular and cyclical instability of the economy, changing institutional structures, labor market issues, and globalization.

Prerequisites: ECON 1050 or ECON 1100 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2022.

ECON 2225 (b, MCSR)   Artificial Intelligence and Economics
Martin Abel.
Non-Standard Rotation. Fall 2024; Spring 2025. Enrollment limit: 35.

Explores how artificial intelligence (AI) and machine learning innovations are transforming the field of economics. Begins with developing a conceptual understanding of key AI concepts and new methodological advancements in machine learning. Investigates how AI may affect employment and labor productivity across different sectors of the economy including health, education, and finance. Students learn about sector-specific tools and applications that leverage AI and examine the government's role in regulating AI and designing policies to mitigate potential adverse effects. (Same as: DCS 2725)

Prerequisites: ECON 1101 or Placement in ECON 2000 Level.

ECON 2227 (b, IP, MCSR)   Human Resources and Economic Development
Non-Standard Rotation. Enrollment limit: 35.

An analysis of human resource issues in the context of developing countries. Topics include the composition of the labor force by age and gender, productivity of the labor force, unemployment and informal sector employment, child labor and the health and schooling of children, and the effects of structural adjustment policies and other policy interventions on the development and utilization of human resources. Examples from selected African, Asian, and Latin American countries are integrated throughout and the interaction of sociocultural environments with economic forces is considered.

Prerequisites: ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2023.

ECON 2228 (b, MCSR)   Natural Resource Economics and Policy
Non-Standard Rotation. Enrollment limit: 35.

A study of the economic issues surrounding the existence and use of renewable natural resources (e.g., forestry/land use, fisheries, water, ecosystems, and the effectiveness of antibiotics) and exhaustible resources (such as minerals, fossil fuels, and old growth forest). A basic framework is first developed for determining economically efficient use of resources over time, then extended to consider objectives other than efficiency, as well as the distinguishing biological, ecological, physical, political, and social attributes of each resource. Uncertainty, common property, and various regulatory instruments are discussed, as well as alternatives to government intervention and/or privatization. (Same as: ENVS 2303)

Prerequisites: ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2023, Spring 2022.

ECON 2238 (b, MCSR)   Eatconomics: The Economic Analysis of the Food Industry
Guillermo Herrera.
Non-Standard Rotation. Fall 2024. Enrollment limit: 35.

We eat food to live (we "need" it), but we also use food to express the values of variety and aesthetics. Using applied microeconomic tools, this course will study the production, storage, distribution, and consumption of food by individuals, firms, government, and nongovernmental organizations. Economic models will be developed to analyze why some people experience food scarcity and hunger while others have access to plentiful food; food technologies (e.g., organic vs "conventional" farming); food distribution (grocery stores, restaurants, food trucks, the "gig economy"; fair trade); the diet industry; the environmental impacts of food production (water use and climate impacts); food security and international trade of food products; and other topics as student demand dictates. (Same as: ENVS 2238)

Prerequisites: ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level.

ECON 2304 (b, IP, MCSR)   Economics of the European Union
Non-Standard Rotation. Enrollment limit: 35.

Focuses on the core economic aspects of the EU integration while taking into account historical and political influences. Major contemporary macroeconomic issues like monetary unification, fiscal policy in a monetary union, theory of customs unions, labor markets and migration, and financial markets and EU crises analyzed through theoretical approaches and empirical evidence.

Prerequisites: Two of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level.

Previous terms offered: Fall 2021.

ECON 2409 (b, MCSR)   Economics of Money, Banking, and Finance
Non-Standard Rotation. Enrollment limit: 35.

Introduction to the functions, structure, and operation of modern monetary and financial systems as they relate to the performance of the economic system. Contemporary debates regarding the effectiveness with which financial institutions and markets fulfill the basic functions of finance in a capitalist economy, and the policy choices of the Federal Reserve System and other regulatory agencies will be emphasized. Formerly Economics 2209. Not open to students who have taken Economics 2301, 3301, 3302.

Prerequisites: Two of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2023.

ECON 2429 (b, MCSR)   Financial Crises
Matthew Botsch.
Non-Standard Rotation. Spring 2025. Enrollment limit: 35.

Presents a historical and theoretical overview of financial crises, from the Dutch Tulipmania of 1636–1637, through the stock market crash of 1929, to the Financial Crisis of 2007–2009. Investigates why financial crises occur, how they spill over onto the broader macroeconomy, and whether policymakers should respond. Covers models of bubbles, banking panics, sovereign debt crises, and currency crises. Closely studies specific historical episodes and considers what lessons can be drawn for contemporary financial regulation and economic policy.

Prerequisites: Two of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level.

Previous terms offered: Spring 2021.

ECON 2555 (b, MCSR)   Microeconomics
Erik Nelson; Martin Abel.
Every Semester. Fall 2024; Spring 2025. Enrollment limit: 35.

An intermediate-level study of contemporary microeconomic theory. Analysis of the theory of resource allocation and distribution, with major emphasis on systems of markets and prices as a social mechanism for making resource allocation decisions. Topics include the theory of individual choice and demand, the theory of the firm, market equilibrium under competition and monopoly, general equilibrium theory, and welfare economics.

Prerequisites: Three of: ECON 1050 or either ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1700 or Placement in MATH 1750 (M) or Placement in MATH 1750 or Placement in MATH 1800 (M) or Placement in MATH 1800 or Placement in 2000, 2020, 2206 (M) or Placement in MATH 2000 or 2020 or Placement in MATH 2020 or 2206 (M) or Placement in MATH 2020.

Previous terms offered: Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020.

ECON 2556 (b, MCSR)   Macroeconomics
Mahdi Kahou; Duman B-Rad; Matthew Botsch.
Every Semester. Fall 2024; Spring 2025. Enrollment limit: 35.

An intermediate-level study of contemporary national income, employment, and inflation theory. Consumption, investment, government receipts, government expenditures, money, and interest rates are examined for their determinants, interrelationships, and role in determining the level of aggregate economic activity. Policy implications are drawn from the analysis.

Prerequisites: Three of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level and Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in MATH 2020 or 2206 (M) or Placement in 2000, 2020, 2206 (M) or Placement in MATH 1700 or Placement in MATH 1750 or Placement in MATH 1800 or Placement in MATH 2000 or 2020 or MATH 1600 or higher.

Previous terms offered: Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020.

ECON 2557 (b, MCSR)   Economic Statistics
Rachel Childers; Jessica LaVoice.
Every Semester. Fall 2024; Spring 2025. Enrollment limit: 35.

An introduction to the data and statistical methods used in economics. A review of the systems that generate economic data and the accuracy of such data is followed by an examination of the statistical methods used in testing the hypotheses of economic theory, both micro- and macro-. Probability, random variables and their distributions, methods of estimating parameters, hypothesis testing, regression, and correlation are covered. The application of multiple regression to economic problems is stressed. Students who have taken Mathematics 2606 are encouraged to take Economics 3516 instead of this course.

Prerequisites: Three of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level and Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in MATH 2020 or 2206 (M) or Placement in 2000, 2020, 2206 (M) or Placement in MATH 1700 or Placement in MATH 1750 or Placement in MATH 1800 or Placement in MATH 2000 or 2020 or MATH 1600 or higher.

Previous terms offered: Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020.

ECON 3208 (b)   International Trade
Discontinued Course. Enrollment limit: 25.

Offers a theoretical and empirical analysis of international trade. Particular attention is given to the standard models of trade: the Ricardian model, the Heckscher-Ohlin model, the specific factors model, and the monopolistic competition model, as well as an introduction to applied general equilibrium models of trade liberalization. Also analyzes current topics such as barriers to trade (quotas, tariffs); the effects of trade liberalization on wage inequality; regional integration blocs; the globalization debate; and the relation between trade, growth, and productivity. Data analysis is used in order to evaluate the success or shortcomings of the theoretical models.

Prerequisites: Two of: ECON 2555 and ECON 2556.

Previous terms offered: Fall 2022, Spring 2021.

ECON 3277 (b, MCSR)   Applied Data Analysis for Economic Research
Duman B-Rad.
Non-Standard Rotation. Fall 2024. Enrollment limit: 18.

Highlights applied research methods in economics. Students will acquire the skills needed to conduct a comprehensive empirical research project in economics. Skills learned include data cleaning, data summary and interpretation, developing hypotheses, building empirical models to test the hypotheses, estimating models with data, and using estimated results to assess hypotheses. Students learn and apply methods for drawing causal inferences from non-experimental data. Other topics that could be covered include spatial econometrics, fixed effects with panel data, machine learning, and randomized controlled trials. Datasets and estimation methods used will vary depending on the instructor. Students will use the statistical programming language R. This course is not a substitute for Econometrics (ECON 3516), as this course does not focus on the theory of economic modeling and modeling estimation. However, this course is open to students who have taken ECON 3516.

Prerequisites: ECON 2557.

ECON 3305 (b)   Game Theory and Strategic Behavior
Daniel Stone.
Non-Standard Rotation. Spring 2025. Enrollment limit: 25.

A rigorous introduction to mathematical game theory, the theory of strategic behavior. Topics include dominance, rationalizability, pure and mixed strategy Nash equilibrium, sequential and repeated games, subgame perfect equilibrium, bargaining, and games of incomplete information. Applications to business, politics, and sports discussed.

Prerequisites: ECON 2555.

Previous terms offered: Fall 2023, Fall 2022, Fall 2021.

ECON 3350 (b)   Mathematical Economics
Mahdi Kahou.
Non-Standard Rotation. Fall 2024. Enrollment limit: 18.

Offers a comprehensive overview of mathematical techniques essential for economic analysis, providing a bridge between mathematical economics and computational methods employed in economic research. Covering a diverse range of topics, students will explore solving systems of equations, including their application in economics, such as addressing non-linear supply and demand equations. Additionally, the curriculum covers optimization methods and their applications in economics, such as utility and profit maximization, as well as linear and quadratic optimizations relevant to finance and economics, including portfolio selection problems. Also introduces methods to analyze decision-making in dynamic environments. Throughout the course, students will develop proficiency in problem-solving using Python.

Prerequisites: Two of: either ECON 2555 or ECON 2556 and MATH 1800.

Previous terms offered: Fall 2021.

ECON 3360 (b, MCSR)   Economic Forecasting
Rachel Childers.
Non-Standard Rotation. Fall 2024. Enrollment limit: 30.

Governments forecast economic indicators (e.g., GDP, job growth, etc.); businesses forecast sales; portfolio managers forecast asset return—the list goes on. Accurate forecasts are critical to robust organizational decision-making. This course will introduce students to modern methods for forecasting in economic and business applications. Topics covered include multiple perspectives on data-based methods for forecast construction and assessment, univariate and multivariate time series models and algorithms, and principled combination of multiple methods and data sources along with subject matter expertise to improve performance. Methods will be motivated by applications in macroeconomics, technology, marketing, and finance, with cases drawn from forecasting processes in a variety of business and government organizations. Students will implement forecasting methods in R and will apply them in a real data forecasting competition.

Prerequisites: Three of: either ECON 1101 or ECON 1102 or Placement in earned ECON 1101 or Placement in earned ECON 1102 or Placement in ECON 2000 Level and ECON 2557 or MATH 2606 and Placement in MATH 1600 (M) or Placement in MATH 1600 or Placement in MATH 1700 (M) or Placement in MATH 1700 or Placement in MATH 1750 (M) or Placement in MATH 1750 or Placement in MATH 1800 (M) or Placement in MATH 1800 or Placement in 2000, 2020, 2206 (M) or Placement in MATH 2000 or 2020 or Placement in MATH 2020 or 2206 (M) or Placement in MATH 2020.

ECON 3401 (b)   Financial Economics
Matthew Botsch.
Non-Standard Rotation. Fall 2024. Enrollment limit: 25.

An introduction to the economics of finance using the tools of intermediate microeconomic theory. Explores the economic role of financial markets in determining the price of risk, allocating capital across space, and moving economic value through time. Particular emphasis on questions of market efficiency and social usefulness. Topics likely to include choice under uncertainty, the time value of money, portfolio optimization, the Capital Asset Pricing Model, the Efficient Market Hypothesis, options and derivatives, and the Modigliani-Miller Theorem. Formerly Economics 3301. Not open to students with credit for Economics 2301 taken in the fall 2014 or fall 2015 semesters.

Prerequisites: ECON 2555.

Previous terms offered: Fall 2023, Fall 2022, Fall 2021, Fall 2020.

ECON 3423 (b, MCSR)   Economics of Competitive Advantage
Gregory DeCoster.
Every Year. Spring 2025. Enrollment limit: 30.

Study of the economics underlying successful competitive strategy. Utilizing a small number of fundamental economic concepts and a series of case studies, the course focuses on the strategic imperatives of competitive markets, the sources and dynamics of competitive advantage, and the challenges of skillful management of competitive interactions. In addition, the course examines the historical origins and evolution of the company as an entity, along with governmental efforts to police anticompetitive practices, and develops the corporate finance and accounting concepts required for competitive analysis.

Prerequisites: ECON 2555.

Previous terms offered: Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Spring 2021, Fall 2020.

ECON 3509 (b)   International Finance
Non-Standard Rotation. Enrollment limit: 18.

Seminar. Surveys a number of topics in international finance and international macroeconomics, including balance of payments, exchange rate determination, the Mundell-Fleming model of output and exchange rate, exchange rate regimes, international capital flows, and international financial crises. Involves data analysis to empirically evaluate the theoretical models. Also provides a special focus on Asia and Europe by discussing issues such as Asia's role in the global imbalances and the effect of Euro on the capital markets.

Prerequisites: ECON 2556.

Previous terms offered: Spring 2021, Fall 2020.

ECON 3510 (b, MCSR)   Poverty and Economic Development
Non-Standard Rotation. Enrollment limit: 16.

Seminar. Examines the issue of poverty in developing countries and considers policy interventions and their potential consequences. Begins by broadly characterizing poverty in developing countries before examining the intersection of poverty and such topics as education, risk and shocks, health, and the distribution of resources within households. Teaches current techniques for causal identification in applied microeconomics using examples from a variety of contexts, including Sub-Saharan Africa and Asia.

Prerequisites: Two of: ECON 2555 and either ECON 2557 or ECON 3516.

Previous terms offered: Fall 2022, Spring 2022.

ECON 3511 (b)   Economic Evaluation of Public Programs
Non-Standard Rotation. Enrollment limit: 18.

Seminar. How to measure the effectiveness of public policy programs. Covers the basics of cost-benefit analysis and modern empirical methods used to measure and evaluate impacts of public programs. Examines the strengths and limitations of randomized control experiments, natural experiments, and non-experimental observational designs with applications to education, health, public assistance, and labor market policies.

Prerequisites: ECON 2557 or MATH 2606.

Previous terms offered: Fall 2021, Fall 2020.

ECON 3513 (b)   History of Economics at Bowdoin
Non-Standard Rotation. Enrollment limit: 18.

Seminar. In 1824, Bowdoin became the first college in New England to designate a faculty position in political economy. Samuel P. Newman's teachings on the subject were heard on campus and reverberated farther in his textbook. In Newman's view they promoted public peace and morals; in Karl Marx's, the opportune errors of orthodoxy. Over the following two centuries Bowdoin has seen a procession of other notable teachers and students in economics whose careers reflect the changing premises of the academic discipline and the questions it addresses. They include Henry C. Emery, Paul H. Douglas, Albert Abrahamson, A. Myrick Freeman, Lawrence B. Lindsey, and Nancy Folbre. Students in this seminar use published documents and institutional archives to investigate their contributions to economic thought, pedagogy, and policy. The development of economics is studied by collaborative work in constructing its history at Bowdoin.

Prerequisites: Two of: ECON 2555 and ECON 2557 or either MATH 1300 or MATH 1400 or MATH 2606.

Previous terms offered: Spring 2024.

ECON 3516 (b)   Econometrics
Tatyana Avilova.
Every Fall. Fall 2024. Enrollment limit: 18.

Seminar. A study of the mathematical formulation of economic models and the statistical methods of testing them. A detailed examination of the general linear regression model, its assumptions, and its extensions. Applications to both micro- and macroeconomics are considered. Though most of the course deals with single-equation models, an introduction to the estimation of systems of equations is included. An empirical research paper is required.

Prerequisites: Two of: ECON 2557 or MATH 2606 and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in MATH 2020 or 2206 (M) or Placement in 2000, 2020, 2206 (M).

Previous terms offered: Fall 2023, Fall 2022, Fall 2021, Fall 2020.

ECON 3518 (b)   Environmental and Natural Resource Economics
Non-Standard Rotation. Enrollment limit: 18.

Seminar. Analysis of externalities and market failure; models of optimum control of pollution and efficient management of renewable and nonrenewable natural resources such as fisheries, forests, and minerals; governmental vs. other forms of control of common-pool resources; and benefit-cost analysis of policies, including market-based and non-market valuation. Permission of instructor required during add/drop for students who have credit for Economics 2218. (Same as: ENVS 3918)

Prerequisites: Two of: ECON 2555 and ECON 2557.

Previous terms offered: Spring 2024, Fall 2022, Fall 2021.

ECON 3521 (b)   The Economics of Land Use, Ecosystem Services, and Biodiversity
Erik Nelson.
Non-Standard Rotation. Spring 2025. Enrollment limit: 18.

Seminar. Analysis of the economic forces that shape land-use patterns, the relationship between land-use patterns and ecosystem service provision and biodiversity persistence, and the economic value of ecosystem service provision. Investigates methods for increasing ecosystem service values on the landscape and the economic cost of these methods. Analysis of land-use externalities and the failure of land-use patterns to generate maximum societal net benefits; neoclassical economic theory on land-use; methods for estimating market value of land; methods of non-market valuation; efficient land-use patterns from a societal perspective; methods for finding efficient land-use patterns; and governmental and non-governmental organization land conservation programs. Permission of instructor required during add/drop for all students; required at all times for students who have credit for Economics 2218 (same as Environmental Studies 2302) or 2228 (same as Environmental Studies 2228). (Same as: ENVS 3921)

Prerequisites: Three of: either ECON 1050 or ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in MATH 2020 or 2206 (M) or Placement in 2000, 2020, 2206 (M).

Previous terms offered: Fall 2023, Spring 2021.

ECON 3525 (b)   Economic Growth in the Long Run
Duman B-Rad.
Non-Standard Rotation. Spring 2025. Enrollment limit: 18.

Seminar. This course aims to answer why some countries are rich and others are poor. Explores the underlying determinants of economic growth using both theoretical and empirical approaches. "Proximate" determinants, including physical capital, human capital, and technology, are examined in comparison with "deep" determinants, including geography and climate, institutions, culture and religion, and historical events. Methods include formal models, analysis of qualitative and quantitative historical evidence, and cross-country growth regressions.

Prerequisites: Two of: ECON 2555 and ECON 2557.

Previous terms offered: Spring 2024, Spring 2023.

ECON 3526 (b)   Trade Doctrines and Trade Deals
Stephen Meardon.
Non-Standard Rotation. Fall 2024. Enrollment limit: 18.

Seminar. An inquiry into the consequences of theory meeting practice in international trade negotiations. The historical relationship between economic ideas and the bilateral trade treaties, multilateral trade arrangements, and retaliatory tariff laws of Great Britain and the United States considered. The timeline extends from the eighteenth century to the present, from the Treaty of Methuen (1703) to the World Trade Organization.

Prerequisites: ECON 2555.

Previous terms offered: Fall 2023, Fall 2020.

ECON 3531 (b)   The Economics of the Family
Non-Standard Rotation. Enrollment limit: 18.

Seminar. Microeconomic analysis of the family, gender roles, and related institutions. Topics include marriage, fertility, married women's labor supply, divorce, and the family as an economic organization. (Same as: GSWS 3302)

Prerequisites: Two of: ECON 2555 and either ECON 2557 or ECON 3516.

Previous terms offered: Spring 2024, Spring 2022.

ECON 3533 (b)   Behavioral Economics
Non-Standard Rotation. Enrollment limit: 16.

Seminar. Standard economics (i.e., neoclassical economics) assumes that individuals are self-interested, rational actors, who optimize well-defined, stable objective functions. Behavioral economics is the study of systematic departures from these assumptions, and the implications for economic outcomes. Topics include errors in information-processing and belief formation, behavioral choice under uncertainty (loss aversion, reference dependence), time inconsistent behavior (self-control problems), and social preferences (altruism, fairness, and reciprocity).

Prerequisites: Two of: ECON 2555 and either ECON 2557 or MATH 2606 or ECON 3516.

Previous terms offered: Spring 2023, Spring 2022.

ECON 3535 (b)   Economics of Education
Non-Standard Rotation. Enrollment limit: 18.

Seminar. Examines the theoretical and empirical analysis of education decision-making and the consequences of educational choices using an economic lens. Begins with the basic human capital model and expands on it to consider signaling, the interplay between ability and human capital, modeling expectations, and the many challenges of measuring the rate of return to educational investment. Educational policies from preschool to graduate studies are also considered, including the public funding of education, class size, and outcome testing. Examples are drawn from both developed and developing countries. (Same as: EDUC 3535)

Prerequisites: Two of: ECON 2555 and ECON 2557 or MATH 2606.

Previous terms offered: Spring 2023, Spring 2021.

ECON 3540 (b)   Law and Economics
Zorina Khan.
Non-Standard Rotation. Fall 2024. Enrollment limit: 18.

Seminar. Law and economics is one of the most rapidly growing areas in the social sciences. The field applies the concepts and empirical methods of economics to further our understanding of the legal system. Explores the economic analysis of law and legal institutions, including the economics of torts, contracts, property, crime, courts, and dispute resolution. Also focuses on topics in law and economics such as antitrust and regulation, corporations, the family, labor markets, product liability, and intellectual property. Students are introduced to online sources of information in law, and are required to apply economic reasoning to analyze landmark lawsuits in each of these areas. Not open to students who have credit for Economics 3541.

Prerequisites: ECON 2555.

Previous terms offered: Spring 2023, Spring 2021.

ECON 3550 (b, MCSR)   Digital Economics and Artificial Intelligence
Zorina Khan.
Every Other Year. Spring 2025. Enrollment limit: 16.

Seminar. Analyzes the role of artificial intelligence and digital technologies in the modern economy, from the perspective of economic theory and empirical research. Topics include cryptocurrencies, blockchain technology, robotics, machine learning and artificial intelligence, "big data," social and economic networks, open-source software, intellectual property, and piracy of digital media. Assesses the extent to which such emerging technologies and processes disrupt markets, hierarchies and the state, including the organization of firms and industries, money and finance, technological innovation, productivity and growth, the law, and government policy. DCS/CS juniors or seniors may enroll with instructor permission. (Same as: DCS 3750)

Prerequisites: ECON 2555.

Previous terms offered: Spring 2024.

ECON 3551 (b, MCSR)   Labor Economics
Martin Abel.
Non-Standard Rotation. Spring 2025. Enrollment limit: 18.

Seminar. The course covers: i) decisions made by employers in the hiring process and employment relationship, ii) decisions made by job seekers and workers, iii) the role that governments play in designing labor markets policies. The first block investigates how firms screen applicants and motivate workers, including the design of incentives, employment of big data, and issues relating to hiring and workplace discrimination. The second block explores how individuals search for work, form wage expectations, and decide whether to migrate for work. Last, we will focus on the role of the government in designing (active) labor market policies such as wage subsidies, quotas, and job counseling. Methodologically, we will review empirical strategies used to study these topics, enabling students to read academic journal articles. Students have the choice of either creating a detailed research design or an empirical research project that includes original data work.

Prerequisites: Two of: ECON 2555 and ECON 2557.

Previous terms offered: Spring 2024, Fall 2022.

ECON 3552 (b, DPI, MCSR)   Detecting Discrimination
Every Year. Enrollment limit: 18.

Seminar. An applied economic research course designed for students interested in applying quantitative research to investigate discrimination and other social issues. We review research methods with a particular focus on experimental research. We discuss theories for why people discriminate and examine empirical evidence on the prevalence of discrimination. Each term the seminar will be organized around a common theme. Students work in groups to implement their own research project. Through a combination of lectures, workshops and group project work, students get a hands-on experience on how to conduct empirical research including identifying research questions; designing surveys; designing and implementing experiments; obtaining institutional approval to conduct research with human subjects; cleaning, managing, analyzing, and presenting primary data; and writing an academic style paper.

Prerequisites: Two of: ECON 2555 and ECON 2557 or MATH 2606.

Previous terms offered: Spring 2023.

ECON 3559 (b, MCSR)   The Behavioral Economics of Affective Polarization
Non-Standard Rotation. Enrollment limit: 18.

Seminar. This course will introduce students to the main topics of behavioral economics—the approach to economics relaxing the traditional assumptions of rational and purely self-interested choice —with an emphasis on applications to affective polarization, or why interpersonal disagreement tends to lead to interpersonal hostility. The course will focus on affective polarization in US politics over recent decades but will also discuss affective polarization in other political and non-political contexts. The course will be based on the instructor's book on the topic (an e-version will be available free to students) and cover related journal articles and books from economics and other social sciences. Students will conduct research projects on theories of affective polarization and interventions for reducing it.

Prerequisites: Two of: ECON 2555 and ECON 2557.

Previous terms offered: Spring 2023.

ECON 3560 (b)   Urban Economics
Non-Standard Rotation. Enrollment limit: 16.

Seminar. Studies the relationship between economics and urban geography, specifically focusing on how individuals, firms, and other organizations make economic choices across urban areas. Provides theoretical and empirical analyses of cities from both historical and contemporary vantage points. Topics include the development of urban areas, patterns of land use within cities, and the causes and consequences of urban poverty, segregation, congestion, and crime. Also examines the merits of policy responses to these urban problems.

Prerequisites: Two of: ECON 2555 and either ECON 2557 or MATH 2606 or ECON 3516.

Previous terms offered: Spring 2022, Spring 2021.

ECON 3561 (b, MCSR)   Behavioral Economics and Socially Responsible Capitalism
Daniel Stone.
Non-Standard Rotation. Spring 2025. Enrollment limit: 16.

Seminar. This course introduces students to the main topics of behavioral economics—the study of deviations from traditional economic assumptions of rational and purely self-interested choice—with an emphasis on applications to socially responsible capitalism. Behavioral economics topics include belief formation, choice under uncertainty, intertemporal choice, and social preferences. Socially responsible capitalism is studied in the second half of the course and topics include theories of pro-social firm behavior, public perceptions of social responsibility, social responsibility metrics, and evidence of impacts for firms and society. Students conduct research projects on various aspects of socially responsible capitalism analyzed through the lens of behavioral economics. Not open to students who have taken or are currently enrolled in ECON 3355, ECON 3533, or ECON 3559.

Prerequisites: ECON 2555.

Previous terms offered: Spring 2024.

ECON 3564 (b, MCSR)   The Economics of Epidemics
Non-Standard Rotation. Enrollment limit: 18.

Seminar. An examination of policy responses to epidemics. Policy responses to bacterial and viral diseases, including AIDS and malaria, as well as policy responses to lifestyle diseases, such as opioid addiction and type 2 diabetes, will be analyzed, critiqued, and compared through an economic lens. Examines the strengths and limitations of various causal inference methods in evaluating these public health initiatives and assessing their impacts on health and economic outcomes.

Prerequisites: Two of: ECON 2555 and either ECON 2557 or ECON 3516.

Previous terms offered: Spring 2023, Spring 2022.

ECON 3634 (b)   Behavioral Finance
Matthew Botsch.
Non-Standard Rotation. Spring 2025. Enrollment limit: 16.

Seminar. An extensive literature from psychology documents that decision-makers do not behave fully rationally. Behavioral economic theories that incorporate these insights have revolutionized the study of finance. Explores the implications of behavioral deviations from the standard model for financial markets and financial decision-making, including nonstandard preferences, nonstandard beliefs, and heuristics and biases. Emphasizes recent empirical research in the field. Topics may include: noise traders, news models of bubbles, predictability, the disposition effect, status-quo bias, investor inattention, overconfidence, managerial traits, learning from experience effects. Formerly Economics 3534.

Prerequisites: Two of: ECON 2557 or MATH 2606 and either ECON 2555 or ECON 2556 or ECON 3516.

Previous terms offered: Spring 2022.