

# ECONOMICS (ECON)

## **ECON 1013 (b) The Moral Economy**

Non-Standard Rotation. 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**

Zorina Khan.

Non-Standard Rotation. Fall 2023. 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 2022, Fall 2020.

## **ECON 1050 (b, MCSR) Principles of Microeconomics and Quantitative Reasoning**

Rachel Connelly.

Non-Standard Rotation. Spring 2024. 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 have taken Economics 1101.

Prerequisites: MATH 1050 or Placement in ECON 1050.

Previous terms offered: Spring 2023, Spring 2022, Spring 2021, Fall 2019.

## **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, Spring 2020.

## **ECON 1099 (b, DPI, MCSR) Using "Big Data" to Investigate and Suggest Solutions to Economic and Social Problems**

Non-Standard Rotation. 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**

Guillermo Herrera; Daniel Stone; Zorina Khan.

Every Semester. Fall 2023; Spring 2024. 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 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**ECON 1102 (b, MCSR) Principles of Macroeconomics**

Tatyana Avilova; Stephen Meardon; Mahdi Kahou.

Every Semester. Fall 2023; Spring 2024. 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 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**ECON 2001 (b) Economic Policy**

Gregory DeCoster.

Every Year. Spring 2024. 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: Fall 2022, Spring 2022, Fall 2020, Fall 2019.

**ECON 2020 (b, MCSR) The Economics of Art and Culture**

Zorina Khan.

Non-Standard Rotation. Spring 2024. 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 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.

**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**

Stephen Meardon.

Non-Standard Rotation. Fall 2023. 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 2021, Spring 2020.

**ECON 2215 (b, MCSR) The Political Economy of U.S. Income Inequality**

Non-Standard Rotation. Enrollment limit: 35.

After an initial look at how we measure economic inequality, we examine economic inequality trends over the past four decades in the US. We then embark on a tour of some leading economic hypotheses for the rise in inequality, ranging from immigration and globalization to superstars and winner-take-all markets. We will also examine how the degree of US inequality varies according to which political party is in power. We will also explore differences between rich and poor in voting power, political voice and participation—and whether these differences matter in the extent to which average citizens or elites get their way in the making of public policy that affects economic inequality. Our path toward answering these questions touches on many disciplines in the arts and sciences, including anthropology, economics, history, philosophy, political science, psychology, and sociology.

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

Previous terms offered: Fall 2022.

**ECON 2218 (b, MCSR) Environmental Economics and Policy**

Erik Nelson.

Non-Standard Rotation. Fall 2023. 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: 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 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, Spring 2020.

**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, Fall 2019.

**ECON 2380 (b, MCSR) Economic History of American Enterprise**

Non-Standard Rotation. Enrollment limit: 35.

Considers the history of American enterprise over the past two centuries. First examines key issues in the economics of the firm, entrepreneurship, and innovation during the nineteenth century (the period of the second industrial revolution). Then addresses these issues from a more recent perspective (the so-called third industrial revolution). Assesses what lessons for the twenty-first century can be learned from an examination of the development of enterprise since the nineteenth century; and analyzes the extent to which today's "New Economy" raises novel questions for economic theory and its applications.

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

Previous terms offered: Spring 2020.

**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, Fall 2019.

**ECON 2429 (b, MCSR) Financial Crises**

Non-Standard Rotation. 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, Spring 2020.

**ECON 2555 (b, MCSR) Microeconomics**

Martin Abel.

Every Semester. Fall 2023; Spring 2024. 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 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: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**ECON 2556 (b, MCSR) Macroeconomics**

Mahdi Kahou; Duman B-Rad.

Every Semester. Fall 2023; Spring 2024. 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 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: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**ECON 2557 (b, MCSR) Economic Statistics**

Erik Nelson; Rachel Connelly.

Every Semester. Fall 2023; Spring 2024. 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 MATH 1600 or higher.

Previous terms offered: Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019.

**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 3305 (b) Game Theory and Strategic Behavior**

Daniel Stone.

Non-Standard Rotation. Fall 2023. 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 2022, Fall 2021, Fall 2019.

**ECON 3350 (b) Mathematical Economics**

Non-Standard Rotation. Enrollment limit: 18.

A survey of some of the mathematical techniques used to conduct economic analyses. Topics include utility maximization under uncertainty; solving constrained optimization problems with mathematical programming; optimal control theory; solving complex equations and systems of equations with numerical methods; dynamic programming; and general equilibrium analysis. Students learn to solve problems with MATLAB and other similar programming and statistical software.

Prerequisites: Two of: ECON 2555 and MATH 1800.

Previous terms offered: Fall 2021.

**ECON 3355 (b, MCSR) Behavioral Economic Theory**

Every Other Year. Enrollment limit: 25.

Behavioral economics is the study of deviations from the standard microeconomics assumptions of optimization and pure self-interest, and economic implications of such deviations. This course covers benchmark theoretical models of the main topics of behavioral economics: biases in belief formation, decisions under certainty and uncertainty, intertemporal choice, nonstandard preferences and preference formation including social forces, and nonstandard strategic choice. The course emphasizes theory but will also cover related experimental and empirical evidence.

Prerequisites: ECON 2555.

Previous terms offered: Spring 2020.

**ECON 3401 (b) Financial Economics**

Gregory DeCoster.

Non-Standard Rotation. Fall 2023. 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 2022, Fall 2021, Fall 2020, Fall 2019.

**ECON 3423 (b, MCSR) Economics of Competitive Advantage**

Gregory DeCoster.

Every Year. Fall 2023; Spring 2024. 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 2023, Fall 2022, Spring 2022, Spring 2021, Fall 2020, Spring 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, Spring 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 ECON 2556 and either ECON 2557 or ECON 3516 and either ECON 2557 or ECON 3516.

Previous terms offered: Fall 2022, Spring 2022, Fall 2019.

**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**

Stephen Meardon.

Non-Standard Rotation. Spring 2024. Enrollment limit: 18.

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.

**ECON 3515 (b, DPI, MCSR) Geographic Inequality, Public Policy, and GIS**

Non-Standard Rotation. Enrollment limit: 16.

Explores economic inequalities using spatial geographic data and Geographic Information Systems (GIS) and statistical tools. Investigates the role of place in contributing to racial, gender, health, and income inequalities and assesses public policy effectiveness in addressing or contributing to these inequalities. Topics include health and mortality differences, environmental justice, segregation and housing policy, intergenerational links, educational inequalities, crime and policing. Students will learn GIS methods and produce independent research projects at the end of the semester.

Prerequisites: ECON 2557 or MATH 2606 or MATH 1300 or MATH 1400 or PSYC 2520 or ECON 3516.

Previous terms offered: Spring 2022.

**ECON 3516 (b) Econometrics**

Tatyana Avilova.

Every Fall. Fall 2023. 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 2022, Fall 2021, Fall 2020, Fall 2019.

**ECON 3518 (b) Environmental and Natural Resource Economics**

Guillermo Herrera.

Non-Standard Rotation. Spring 2024. 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: Fall 2022, Fall 2021, Fall 2019.

**ECON 3521 (b) The Economics of Land Use, Ecosystem Services, and Biodiversity**

Erik Nelson.

Non-Standard Rotation. Fall 2023. 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 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: Spring 2021.

**ECON 3525 (b) Economic Growth in the Long Run**

Duman B-Rad.

Non-Standard Rotation. Spring 2024. Enrollment limit: 18.

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 2023.

**ECON 3526 (b) Trade Doctrines and Trade Deals**

Stephen Meardon.

Non-Standard Rotation. Fall 2023. 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 2020.

**ECON 3531 (b) The Economics of the Family**

Rachel Connelly.

Non-Standard Rotation. Spring 2024. 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 2022, Fall 2019.

**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, Spring 2020.

**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, Spring 2020.

**ECON 3540 (b) Law and Economics**

Non-Standard Rotation. 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, Fall 2019.

**ECON 3547 (b, MCSR) Big Data and Economics**

Non-Standard Rotation. Enrollment limit: 16.

A thorough exploration of the implications that the data revolution, which has been brought about by the Internet and technological advances, has brought to the study of economics. Administrative data, real-time data, and openly available data sets have made it possible to answer questions that were previously problematic, and to offer near real-time analysis of time sensitive questions. Four overarching topics are explored: big data innovations, big data and economic theory, big data for public policy, and the limitations of big data.

Prerequisites: Two of: ECON 2555 and ECON 2557.

Previous terms offered: Spring 2020.

**ECON 3550 (b, MCSR) Digital Economics and Artificial Intelligence**

Zorina Khan.

Every Other Year. Spring 2024. Enrollment limit: 16.

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. (Same as: DCS 3750)

Prerequisites: ECON 2555.

**ECON 3551 (b, MCSR) Labor Economics**

Martin Abel.

Non-Standard Rotation. Spring 2024. 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: 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 2024. Enrollment limit: 16.

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.

**ECON 3562 (b, IP, MCSR) Economics with Satellites**

Every Fall. Enrollment limit: 18.

Seminar. Imagine a future where we could do miraculous things. We could quantify economic activity anywhere in the world—even in the midst of pandemics or wars—using satellites to measure city lights at night and densities of air pollution. We could observe the economy living and breathing in real-time, applying artificial intelligence to identify and count cars in images of millions of parking lots. We could do things that were never before possible: uncover ethnic favoritism by assessing the quality of roofs in slums, create a global inventory of crop yields and forecast the effect of global warming over the next century, and even quantify the effect of illegal loggers in the Amazon - to the last tree. The future is now. This class will introduce students to the growing field of using satellite data to conduct economic analysis, and offer a new perspective on the global economy: From space.

Prerequisites: ECON 2557.

Previous terms offered: Fall 2021.



**ECON 3564 (b, MCSR) The Economics of Epidemics**

Non-Standard Rotation. Enrollment limit: 18.

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**

Non-Standard Rotation. 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.