

# ECONOMICS

## Department Website:

<https://www.haverford.edu/economics>

Economics consists of a variety of theoretical approaches to understanding human behavior, social interactions, and economic performance, and a set of powerful methodological tools that can be used to test competing theories empirically. The economics curriculum at Haverford offers introductory and upper level courses both in theoretical and empirical methods, as well as numerous electives on a broad range of economic topics. Students with a wide range of interests—financial markets, the environment, politics and public policy, less-developed countries, income distribution and equity, the law, and international trade, to name just a few—will find much that is useful and stimulating by studying economics. Even one or two economics courses can be an important part of the liberal education of any college student, and students with a diverse set of interests find the economics major to be an engaging and rewarding course of study.

## Learning Goals

Students will:

- learn to approach real-world problems like an economist.
- achieve competency in the building blocks of economic theory.
- achieve competency in statistics and econometrics.
- communicate as an economist.
- develop and execute an original economics research project.

Haverford's Institutional Learning Goals are available on the President's website, at <http://hav.to/learninggoals>.

## Curriculum

The introductory courses, ECON H104, ECON H105 or ECON H106, introduce the building blocks of microeconomic and macroeconomic theory, as well as their applications. Microeconomics is the study of the behavior of firms and individuals, and their interactions in markets for goods, services, labor, and assets. Macroeconomics is the study of aggregate economic performance, including indicators such as GDP, inflation, unemployment and the budget deficit, and policy tools such as interest rates and government spending. These courses provide an overview of economics and a strong foundation for more advanced work in economics. ECON H201 (Analytical Methods for

Economics), advances the concepts introduced in the introductory courses, and develops skillsets that will be used later in the curriculum. It is a required course for majors and minors, and a prerequisite for both intermediate theory courses (ECON H300, ECON H302).

The intermediate (200-level) courses offer material on many different economic topics. These courses require ECON H104, ECON H105 or ECON H106 as a prerequisite, and are designed to be useful to non-majors as well as minors and majors. They encompass such diverse subjects as environmental economics, microfinance, law and economics, public health economics, crises, economic development of China and India, and game theory.

Statistics courses, which include ECON H203 (Statistical Methods in Economics) or ECON H204 (Economic Statistics with Calculus) followed by ECON H304 (Introduction to Econometrics), give students the necessary methodological training to understand empirical research described in contemporary economics articles and to conduct their own original research.

Advanced theory courses, ECON H300 (Intermediate Microeconomic Theory) and ECON H302 (Intermediate Macroeconomic Theory), follow up on the content of ECON H201. They offer more in-depth and mathematical treatments of these theoretical concepts, which are the building blocks for modern economic thought and research.

Advanced (300-level) elective courses involve a more technically sophisticated approach to analyzing a variety of economic issues. Most focus on a specific area of economic inquiry. These topics courses include such diverse areas as behavioral economics, natural resource economics, international trade, and economics of uncertainty. These advanced topics courses require some combination of ECON H203, ECON H300, ECON H302, and ECON H304 as prerequisites, and they are designed primarily for economics minors and majors and those who expect to make use of economics in their professional careers. In most of these courses, a substantial paper is an important part of the requirement.

Junior Research Seminars (ECON H37X, H38X), are a set of courses designed to develop the student's research skills, and to prepare them for the looming senior thesis process. In these courses, students become familiar with the process of gaining expertise in a particular area of scholarship and finding ways to contribute to it. They are exposed to canonical and cutting-edge research alike, and develop proposals for their own related original research projects.

During the year-long Senior Thesis Research Seminar (ECON H396A and ECON H396B), students prepare for, plan and execute their senior thesis project. The first semester involves some classwork and skill building, while the second semester involves individual research under the supervision of a faculty member.

## Major Requirements

- MATH H105 or MATH H118 (or Placement into MATH H121)
- ECON H104, ECON H105 or ECON H106
- ECON H203 or ECON H204
- ECON H201
- ECON H300
- ECON H302
- ECON H304
- ECON H396A and ECON H396B
- FOUR other semester-long economics electives above the 100 level, including two 300-level courses, one of which must be a Junior Research Seminar (ECON H37X, H38X).

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- Majors are advised to take the following courses by the end of their sophomore year:
    - ECON H104 , ECON H105 or ECON H106.
    - ECON H201
    - ECON H203 or ECON H204.
    - One of the intermediate theory courses (ECON H300 or ECON H302).
  - Majors are required to complete ECON H300 AND ECON H302 by the end of their junior year. ECON H304 and the Junior Research Seminar must be completed by the end of fall semester of senior year.
  - ECON H396A and ECON H396B are taken during the fall and spring, respectively, of senior year.

## Other Information about the Major

Students may count many courses from the Bryn Mawr Economics Department toward the Haverford economics minor and major, including ECON B105. Some courses have different numbering across the campuses, in particular ECON B253 at Bryn Mawr, which counts as a direct substitute for ECON H203. The two economics departments plan their course schedules jointly so that they can offer the maximum variety of economics courses across the two campuses. Haverford Economics majors

may not take the intermediate theory sequence (ECON B200 and ECON B202 ) at Bryn Mawr.

In order to count a course toward the major or minor requirements, the student must earn a grade of 2.0 or higher. Students with strong economics backgrounds may place out of ECON H104/ECON H105/ECON H106 through a placement test, but they will be required to take an extra elective to complete the major.

Students who plan to apply to graduate programs in public policy or business should take additional math courses through at least MATH H121 (Multivariable Calculus III) and at least one computer science course. Similarly, students who are planning to apply to Ph.D. programs in economics should take mathematics through at least MATH H215 (Linear Algebra) and MATH H317(Analysis I). Economics majors also have the option to pursue the Concentration in Mathematical Economics, which is described under its own heading in this catalog.

## Senior Project

The senior thesis at Haverford College is the culmination of a four-year learning process during which students develop their scholarly interests and become independent thinkers. The yearlong, two-semester Senior Research Seminar in Economics imparts skills and techniques essential to students undertaking original independent research projects. The first (fall) semester includes:

- workshops on research techniques, on thesis writing skills and on data collection and management with Excel and Strata;
- presentations of working papers by visiting scholars preceded by small group critiques of each paper;
- and one-on-one work with a faculty member to develop a thesis proposal.

The course focuses on acquisition of tools to conduct original research, learning how to engage in scholarly discussions, and learning about critical analysis. By the end of the fall semester, students have developed an original research idea and written a formal proposal for the thesis which they have orally presented to a sub-section of the class. The faculty members overseeing the class must approve the proposal. Independent work under the guidance of a faculty advisor begins at the end of the first semester and continues throughout the second semester. During the second (spring) semester, students develop their thesis through extensive reading, empirical and or theoretical analysis of the research question, individual sessions with a faculty advisor, and group discussion. The final thesis is an original economic contribution to the

field of knowledge in which the thesis is located. Each student demonstrates a clear mastery of the literature surrounding the research question, an understanding of the theoretical underpinnings of the question, and adequate analysis and discussion of results.

### Senior Project Learning Goals

Students will learn to:

- craft a viable economics research question and design a project that will answer it.
- summarize the economic scholarship related to this question while discovering and articulating relationships among texts and contextualizing the research question within the broader literature.
- construct and execute an analytic argument that culminates in well-grounded and testable hypotheses.
- collect, manage, and analyze data to test the hypotheses.
- develop and articulate well-founded conclusions based on the empirical or theoretical evidence.
- write a professional-quality research paper that presents their work and findings.
- present the findings of their research orally using relevant visual aids (graphs, tables, mathematical equations, for example).

### Senior Project Assessment

We provide two rubrics for assessment of the economics senior thesis, one for a theoretical thesis and one for the more common empirical thesis. The rubrics, which assess the written thesis, were tested and approved by faculty members in the spring of 2014. Currently each faculty member will assess the thesis of their advisees, providing a rating of each criterion. While the ratings will be related to the final grade that the student receives, the faculty member will have the opportunity to incorporate other facets of the students' experience to the grading process such as creativity, improvement, perseverance, etc. At the time of grading, the ratings will be submitted to the department's administrative assistant who will compile the results, using a numerical translation of the ratings (4=excellent; 3=proficient, etc.). Each fall, the department will meet and look over the ratings to determine which categories the students are more or less proficient in and where we have seen improvement or setbacks and to assess the continued relevance of the criteria. The outcome of this meeting will guide changes to the fall senior thesis curriculum and potentially to the economics major curriculum as well as changes to the rubric.

## Requirements for Honors

The Economics Department will grant departmental honors on the basis of outstanding academic performance and integrity in economics courses, and contribution to the intellectual life of the department.

### Minor Requirements

- ECON H104, ECON H105 or ECON H106
- ECON H201
- ECON H203 or ECON H204
- ECON H300 or ECON H302
- Two other economics courses at the 200 and/or 300 levels.

## Related Concentration

### Concentration in Mathematical Economics

Mathematics and economics are complementary disciplines. Most branches of modern economics use mathematics and statistics extensively, and some important areas of mathematical research have been motivated by economic problems. Economists and mathematicians have made important contributions to each other's disciplines. Economist Kenneth Arrow, for example, did path-breaking work in the field of mathematical optimization; and in 1994 mathematician John Nash was awarded the Nobel Prize in economics for introducing a theory of equilibrium in non-cooperative games that has become central to contemporary economic theory. Haverford's Concentration in Mathematical Economics enables students in each of the disciplines not only to gain proficiency in the other, but also to understand the ways in which they are related and complementary.

## Affiliated Program

### One-Year Master's Program at Claremont McKenna College's Robert Day School of Economics and Finance

Haverford students accepted into the Robert Day School of Economics and Finance graduate school will receive a full scholarship for their one-year Master's in Finance at the Claremont McKenna College (CMC) campus in Claremont, California. The program offers an intensive curriculum in economics and finance with an additional emphasis on co-curricular programming that develops career skills and supports post-graduate job placement.

The scholarship includes full-tuition, but students are responsible for the cost of living expenses and for providing proof of health insurance. Program fees are minimal, and all program events, including networking trips, are fully funded by the program.

Eligible students must have a strong academic record, demonstrating excellent quantitative skills,

particularly through course work in macroeconomics and microeconomics at the intermediate level, statistics, and, if possible, corporate finance. However, applicants can present a variety of academic profiles for consideration. Course work planned for the summer before matriculation in the graduate program can be taken into consideration in the selection process.

The application deadline is in February of the senior year. For more information about the Master's in Finance at CMC's Robert Day School of Economics and Finance, please contact the chair of the Economics Department and visit <https://www.cmc.edu/rdschool/academic/>

## Faculty

### Richard Ball

Professor of Economics

### Carola Binder

Assistant Professor of Economics

### Neal Grabell

Visiting Professor of Economics and Independent College Programs

### Saleha Jilani

Assistant Professor of Economics

### Vladimir Kontorovich

Professor of Economics

### Shannon Mudd

Director of Microfinance, Impact Investing, and Social Entrepreneurial Programs; Assistant Professor of Economics; Coordinator of Peace, Justice, and Human Rights

### David Owens

Associate Professor and Chair of Economics

### Giri Parameswaran

Assistant Professor of Economics; Coordinator of Mathematical Economics

### Anne Preston

John Hurford Professor; Professor of Economics

## Affiliated Faculty

### Mark Gould

Professor of Sociology

### Robert Manning

Professor of Mathematics and Statistics; William H. and Johanna A. Harris Chair of Computational Science; Associate Provost for Faculty Development and Support

## Courses

### ECON H104 INTENSIVE INTRODUCTION TO ECONOMICS (1.0 Credit)

*Anne Preston*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

An intensive introduction to both microeconomic topics—opportunity cost, supply and demand, consumer decision making, the theory of the firm, market structures, and efficiency and market failure—and macroeconomic topics—the determination of GDP, money and interest rates, unemployment and inflation, and fiscal and monetary policy. Designed for students who have not taken economics previously, the course meets 3 1/2 hour sessions per week and includes labor market applications (minimum wage, income inequality and the returns to college).

**(Offered:** Spring 2021)

### ECON H105 INTRODUCTION TO ECONOMICS (1.0 Credit)

*David Owens, Saleha Jilani, Vladimir Kontorovich*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

An introduction to microeconomic and macroeconomic concepts and topics. Micro topics include opportunity cost, supply and demand, consumer decision making, the theory of the firm, production costs, market structures, market failure, efficiency, and welfare. Macroeconomic topics include: measurement of national output, inflation and unemployment, equilibrium output determination, money and banking, interest rates, and fiscal and monetary policy. Because ECON 105 requires graphical and algebraic competency, students are strongly encouraged to take a college-level calculus course either before or concurrently with this course.

**(Offered:** Fall 2020)

### ECON H201 ANALYTICAL METHODS FOR ECONOMICS (1.0 Credit)

*David Owens*

**Division:** Quantitative; Social Science

**Domain(s):** B: Analysis of the Social World; C: Physical and Natural Processes

The course explores several foundational models that shape our understanding of the nature of economic choices and interactions. We develop mathematical tools that are commonly used in the study of economics. This course is intended for students planning to major or minor in economics. Prerequisite(s): Math 105 or Math 118 at Haverford College (or a comparable course in calculus at another college), or placement into Math 121 or higher; ECON 104 or ECON 105 or ECON 106

(Offered: Fall 2020, Spring 2021)

### **ECON H203 STATISTICAL METHODS IN ECONOMICS (1.0 Credit)**

*Richard Ball*

**Division:** Quantitative; Social Science

**Domain(s):** B: Analysis of the Social World

Foundations of statistical inference and data analysis. Three class hours and two lab hours.

Prerequisite(s): ECON 104, 105, or 106; Completion of Math 105 or Math 118 at Haverford College (or a comparable course in calculus at another college), or placement into Math 121 or higher.

(Offered: Fall 2020)

### **ECON H204 ECONOMIC STATISTICS WITH CALCULUS (1.0 Credit)**

*Richard Ball*

**Division:** Quantitative; Social Science

**Domain(s):** B: Analysis of the Social World

Formal development of the theory of statistical inference, and fundamentals of data analysis.

Three hours of class plus two hours of lab per week.

Prerequisite(s): ECON 104, 105 or 106; Completion of Math 118 at Haverford College (or a comparable course in calculus at another college), or placement into Math 121. ECON 204 cannot be taken if ECON 203, MATH 203, SOCL 215, PSYCH 200, or Bryn Mawr's ECON B253 have been taken

(Offered: Spring 2021)

### **ECON H207 MONEY AND BANKING (1.0 Credit)**

**Division:** Social Science

This course will focus on the basic features of asset market equilibria and the nature of interactions between private sector agents, the banking system, and the central bank. The course will begin with a description of how asset prices are determined in stock and bond markets, and then move on to a study of more sophisticated financial assets such as forwards, futures, and options. The course will ultimately facilitate a discussion of the 2008 financial crisis.

(Offered: Fall 2020)

### **ECON H209 LAW AND ECONOMICS (1.0 Credit)**

*Vladimir Kontorovich*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World

Why do rational people follow fixed rules (laws) instead of doing what is best for them in a specific situation? Can there be order without law? Should the government compensate people when it issues environmental and wildlife protection regulations which reduce the value of their property? The lady who burned herself with a cup of McDonald's coffee won several million dollars in compensation. Does

that make sense? We apply economic analysis to these and many other questions in the areas of property law, contracts, torts, and legal procedure.

Prerequisite(s): ECON 104, 105, or 106

(Offered: Spring 2021)

### **ECON H210 LINEAR OPTIMIZATION (1.0 Credit)**

*Robert Manning*

**Division:** Natural Science

**Domain(s):** C: Physical and Natural Processes

An introduction to the optimization of a linear function subject to linear constraints, with applications that include game theory, transportation problems, and network flows. The course includes some theoretical material on the properties of these linear optimization problems, and also a strong emphasis on algorithms, especially the simplex method and some enhancements to it (which are especially relevant since many applications involve many variables and many constraints). Crosslisted: Mathematics, Computer Science, Economics

Prerequisite(s): MATH 215 or equivalent, or instructor consent

(Offered: Spring 2021)

### **ECON H213 INDUSTRIAL ORGANIZATION & PUBLIC POLICY (1.0 Credit)**

*Vladimir Kontorovich*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

Industrial Organization is the study of how markets work, with an emphasis on firm behavior in imperfectly-competitive markets. The focus will be on how firms acquire market power and how they use it, how businesses interact with one another and their customers, implications for the firms' profits and the well-being of their customers, and the role of government competition policy (e.g., regulation, antitrust laws, etc.) to improve the functioning of these markets. This course uses microeconomic tools and game theory to study the strategic competition between firms and examine how this is related to market power and market structure. Prerequisite(s): ECON 104 or 105

(Offered: Spring 2021)

### **ECON H240 ECONOMIC DEVELOPMENT AND TRANSFORMATION: CHINA VS. INDIA (1.0 Credit)**

*Saleha Jilani*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World

This is a survey course on the economic development and recent transitional experience in China and India. The course will examine the economic structure and policies in the two countries, with a focus on comparing China and

India's recent economic successes and failures and their past development policies and strategies. We will analyze the factors affecting the current reforms and transformation process in the two countries, from varying degrees of centrally planned communist/socialist economic systems, towards more decentralized reforming hybrid economies combining plan and market. We examine factors affecting economic development in these emerging economies, including the role of market failure versus government failure, globalization, and institutions. The principal goals for this course include engaging students in critical analysis of published research, exposing them to an application of key economic concepts and theories applied to the study of economic growth and development, and introducing them to the process of conducting original research. Prerequisite(s): ECON 105 or 106, or instructor consent  
(Offered: Spring 2021)

### **ECON H247 FINANCIAL ACCOUNTING (1.0 Credit)**

*Neal Grabell*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

An introduction to financial accounting concepts, financial reporting, and managerial accounting. The course will address how accounting measures, records, and reports economic activities for business entities and how decision makers analyze, interpret, and use accounting information. COURSE MAY NOT BE USED TOWARDS THE ECONOMICS MAJOR or MINOR AT HAVERFORD. Crosslisted: Economics, Independent College Programs  
(Offered: Fall 2020, Spring 2021)

### **ECON H247A FINANCIAL ACCOUNTING (1.0 Credit)**

*Neal Grabell*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

An introduction to financial accounting concepts, financial reporting, and managerial accounting. The course will address how accounting measures, records, and reports economic activities for business entities and how decision makers analyze, interpret, and use accounting information. COURSE MAY NOT BE USED TOWARDS THE ECONOMICS MAJOR or MINOR AT HAVERFORD. Crosslisted: Economics, Independent College Programs  
(Offered: Fall 2020, Spring 2021)

### **ECON H249 THE SOVIET SYSTEM AND ITS DEMISE (1.0 Credit)**

*Vladimir Kontorovich*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

The Soviet system was inspired by some of the loftiest ideals of humanity. The entire society was redesigned so as to pursue common goals, rather than conflicting private objectives. The economy was run for people, not profits. The Soviet system is no more, but the ideas on which it was founded will probably always be with us. What does the largest social and economic experiment in history teach us? The course is 1/3 political science and 2/3 economics. Crosslisted: Economics, Russian  
Prerequisite(s): ECON 104, 105, or 106, or two one-semester courses in political science or history, or instructor consent  
(Offered: Fall 2020)

### **ECON H250 HEALTH ECONOMICS (1.0 Credit)**

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

This course explores the important issues of health and health care from an economic perspective. Students will consider the roles and perspectives of individuals, providers, insurers and governments, and how their decisions are shaped by different economic, political and ethical motivations.  
Prerequisite(s): ECON 104, 105 or 106

### **ECON H277 ETHICAL LEADERSHIP IN BUSINESS AND THE PROFESSIONS (1.0 Credit)**

*Neal Grabell*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

Through an exploration of ethical theory and case studies, we will examine topics such as: the tension between compliance with the law and the profit motive, professional responsibility and detachment, the proper treatment of clients/patients, short-term vs. long-term benefits, the relevance of social benefits claims to business practice, doing 'well' by doing 'good', and the dilemma of ethical relativism in the world of international business.  
(Offered: Spring 2021)

### **ECON H297 ECONOMIC SOCIOLOGY (1.0 Credit)**

*Mark Gould*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

The sociological analysis of economic systems and the sociological reconstruction of microeconomic theory.  
(Offered: Fall 2020)

### **ECON H298 IMPACT INVESTING (1.0 Credit)**

*Shannon Mudd*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

Impact investing is investing to generate both a financial return and a positive social benefit.

It supports firms seeking to address social, environmental and /or governance problems (ESG) in a sustainable way often within market activity. The focus of this course is to not only gain an understanding of the theory and practice of impact investing across its many components, but also to gain practical experience by assessing a particular set of potential impact investments, making formal presentations of findings to an investment committee leading to a recommendation for investment to a partnering foundation. Crosslisted: Economics, Independent College Programs, PJHR Prerequisite(s): ECON 104 or 105 or 106

### **ECON H300 INTERMEDIATE MICROECONOMIC ANALYSIS (1.0 Credit)**

*Giri Parameswaran*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World  
Microeconomic theory has developed around the analysis of Adam Smith's 'invisible hand' conjecture. To test this conjecture, we model the behavior of economic actors (consumers and firms) and their interaction in different markets. These models allow us to investigate the conditions under which these markets work well, less well, or not at all. In the process, basic tools and concepts used in other areas of economics are developed. Many of the topics covered in Introduction to Economics (ECON 105/106) are studied more rigorously and in greater depth. New topics, such as behavior under risk, insurance, and imperfect information, are introduced. Prerequisite(s): ECON 201

### **ECON H302 INTERMEDIATE MACROECONOMIC ANALYSIS (1.0 Credit)**

*Timothy Lambie-Hanson*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World  
Analysis of the behavior of aggregate economic variables such as GDP, inflation, unemployment, interest rates, and the budget and trade deficits. Structured around the development of a New Keynesian/Neoclassical general equilibrium model which relates the markets for goods, money, and labor. Specific topics include: determinants of the business cycle, effects of fiscal and monetary policies, supply shocks, inflationary expectations. Prerequisite: Econ 105 or 106 and one other Econ course and Math 114

### **ECON H304 INTRODUCTION TO ECONOMETRICS (1.0 Credit)**

*Anne Preston*

**Division:** Social Science

**Domain(s):** C: Physical and Natural Processes  
Development of econometric theory introduced in Economics 203. Includes topics such as ordinary

least squares estimation, weighted least squares estimation, estimation of models with nonlinear forms, instrumental variables, and maximum likelihood estimation. Emphasis will be on application of econometric techniques to real economic and social policy issues such as the optimality of speed limit control, AIDS awareness and behavior modification, labor market discrimination, and worker productivity. Students will be expected to use data sets to evaluate policy issues and will be required to make a final presentation of findings in class. Prerequisite(s): ECON 104, 105 or 106; MATH 118 (or equivalent of 2 semesters of college calculus); ECON 203 or 204 or MATH 203 or SOCL 215 or PSYCH 200, or Bryn Mawr's ECON B253 (**Offered:** Fall 2020)

### **ECON H306 ADVANCED CORPORATE FINANCE (1.0 Credit)**

*Shannon Mudd*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World  
This course examines theories and practices of corporate finance and how they have informed each other in their development. The focus is on financing at the firm level. Topics include valuation and risk measures both at the level of individual securities and the level of firms, project analysis, cost of capital, capital budgeting, and financial statement analysis. Prerequisite(s): Econ 203 or 204 or Math 203 or SOCL 215, PSYCH 200, or Bryn Mawr's Econ B253; Econ 300 or Econ B200 at Bryn Mawr; Econ 302 or Econ B202 at Bryn Mawr. Math 118 (or equivalent of 2 semesters of college calculus) (**Offered:** Fall 2020, Spring 2021)

### **ECON H310 FISCAL POLICY AND THE MACROECONOMY (1.0 Credit)**

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World  
Fiscal policy refers to the use of government spending, taxation and subsidies to influence macroeconomic conditions, including households' consumption, firms' investment, employment, inflation, productivity and economic growth. We will study these policies from the perspective of a few alternative models in economic theory. Prerequisite(s): Econ 104/105/106 and 302

### **ECON H314 BEHAVIORAL ECONOMICS (1.0 Credit)**

*David Owens*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World  
This course explores systematic departures of behavior from the predictions of neoclassical economic theory, and when possible, proposes alternative theories to explain this behavior.

The course will begin with a study of reference-dependent preferences, based on Kahneman and Tversky's seminal paper Prospect Theory. Further topics will include, but not be limited to, present-biased preferences, social preferences and behavioral finance. Students should be comfortable with microeconomic theory, and have some exposure to game theory. The course will have a heavy research component, and students should be prepared for critical reading of scholarly articles, and to write and present a research paper of their own. Prerequisite(s): Econ 300 or Econ B200 at Bryn Mawr; Math 118 (or equivalent of 2 semesters of college calculus), or instructor consent

**ECON H314B BEHAVIORAL ECONOMICS (1.0 Credit)**

*David Owens*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

This course explores systematic departures of behavior from the predictions of neoclassical economic theory, and when possible, proposes alternative theories to explain this behavior. The course will begin with a study of reference-dependent preferences, based on Kahneman and Tversky's seminal paper Prospect Theory. Further topics will include, but not be limited to, present-biased preferences, social preferences and behavioral finance. Students should be comfortable with microeconomic theory, and have some exposure to game theory. The course will have a heavy research component, and students should be prepared for critical reading of scholarly articles, and to write and present a research paper of their own. Prerequisite(s): Econ 300 or Econ B200 at Bryn Mawr; Math 118 (or equivalent of 2 semesters of college calculus), or instructor consent

**ECON H324 ADVANCED ECONOMETRICS (1.0 Credit)**

*Carola Binder, Giri Parameswaran*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World; C: Physical and Natural Processes

This course covers advanced topics in theoretical and applied econometrics. The first half focuses on time series econometrics with applications to macroeconomic and financial analysis. The second half focuses on structural estimation and Bayesian statistics. The course emphasizes the role of econometrics in causal inference and forecasting. Prerequisite(s): ECON 304 or MATH 218 or MATH/STAT 286

**ECON H341 ADVANCED TOPICS IN RESEARCH & DATA MANAGEMENT (0.5 Credit)**

*Norm Medeiros*

This course will provide a uniform set of bibliographic and data acquisition strategies for students conducting the high-level of research required by the Economics Junior Seminars ECON372 and ECON378. This course is graded pass/fail and does not count for the major. Prerequisite(s): Concurrent enrollment in ECON 372 or ECON 378.

**(Offered:** Fall 2020)

**ECON H347 ADVANCED MACROECONOMICS (1.0 Credit)**

*Carola Binder*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

This course builds upon the theory introduced in intermediate macroeconomics, with emphasis on empirical research and tests of the effects of macroeconomic policy. Students will present a recent journal article to the class and will write policy briefs on current issues in macroeconomic policy. Prerequisite(s): ECON 302 or ECON B202 at Bryn Mawr; ECON 304 (can be taken concurrently), or instructor consent

**ECON H355 ADVANCED MICROECONOMICS: UNCERTAINTY (1.0 Credit)**

*Giri Parameswaran*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World; C: Physical and Natural Processes

Using microeconomics we study theories of choice under uncertainty; risk aversion and applications to insurance and portfolio choice; equilibrium under uncertainty in asset markets; asymmetric information; applications to the design of incentives, contracts, contests, and auctions; common; understanding and coordination. Prerequisite(s): MATH 121 or 216; Econ majors: ECON 300; Non-Econ majors: ECON 104 or 105 or 106 and at least one of ECON 300 or MATH 215

**(Offered:** Fall 2020)

**ECON H360 MATHEMATICAL ECONOMICS (1.0 Credit)**

*Giri Parameswaran*

**Division:** Quantitative; Social Science

**Domain(s):** C: Physical and Natural Processes

A study of advanced mathematical tools used in economic analysis. Topics include eigenvalues and quadratic forms, differential equations, convex programming and dynamic programming. Applications to consumer theory, generalized linear regression, stability of equilibrium, and models of growth and search. Fulfills Mathematic Economics (MTEC) concentration. Crosslisted: Economics, Mathematics Prerequisite(s): MATH 215; either MATH 121 or 216; ECON 203 or 204 or MATH 203 or



SOCL 215 or PSYCH 200 or Bryn Mawr's ECON B253 recommended

(Offered: Spring 2021)

**ECON H371 JUNIOR RESEARCH SEMINAR: PSYCHOLOGICAL BIASES AND ECONOMIC DECISIONS (1.0 Credit)**

*David Owens*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

A seminar-based course covering current research on the role of psychological biases in economic decision-making. The focus is on critical reading of recent work and developing students' own research. Prerequisite(s): ECON 300 or ECON B200 at Bryn Mawr; ECON 304 (can be taken concurrently). MATH 118 (or equivalent of 2 semesters of college calculus) (Offered: Spring 2021)

**ECON H372 JUNIOR RESEARCH SEMINAR: ADVANCED INTERNATIONAL TRADE (1.0 Credit)**

*Saleha Jilani*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

This seminar-based course covers topics in international trade theory and policy, and foreign direct investment. Determinants of international trade and foreign investment will be analyzed, and we will examine the motivations for and consequences of tariffs and quantitative restrictions on trade. Topics include dynamic comparative advantage, factor movements and multinational corporations, effects of trade on economic growth and income inequality, international trade policy negotiations, the economics of trade agreements and disputes, and regional economic integration. Prerequisite(s): ECON 300 or ECON B200 at Bryn Mawr; ECON 304 (can be taken concurrently). MATH 118 (or equivalent of 2 semesters of college calculus) (Offered: Fall 2020)

**ECON H373 JUNIOR RESEARCH SEMINAR: ACCESS TO FINANCE (1.0 Credit)**

*Shannon Mudd*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

This seminar examines the determinants of access to finance with particular emphasis on small business financing. The primary focus will be on commercial banking. We will examine such issues as banking structures, lending technologies,

regulatory issues and problems of asymmetric information, all with a focus on access to finance. We will also examine microfinance as an alternative approach for providing financial services to the poor. Prerequisite(s): ECON 300 or ECON B200 at Bryn Mawr; ECON 304 (can be taken concurrently). MATH 118 (or equivalent of 2 semesters of college calculus) (Offered: Spring 2021)

**ECON H374 JR RESEARCH SEMINAR: TOPICS IN INDUSTRIAL ORGANIZATION (1.0 Credit)**

*Timothy Lambie-Hanson*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

Industrial organization is the study of firm behavior in imperfect competition. This seminar introduces important empirical and theoretical work in this field. Major topics include monopoly behavior, adverse selection, oligopoly, market foreclosure, collusion, and the theory of the firm. Prerequisite(s): ECON 300 or ECON B200 at Bryn Mawr; MATH 118 (or equivalent of 2 semesters of college calculus)

**ECON H377 JUNIOR RESEARCH SEMINAR: POLITICAL ECONOMY (1.0 Credit)**

*Giri Parameswaran*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

The focus is on critical reading of seminal works and developing students own research skills. Topics include: models of elections and application of voting models to redistributive policies; legislative bargaining; interest groups/lobbying; dynamic models of fiscal policy, debt and more. Crosslisted: Economics, Political Science Prerequisite(s): MATH 118 and ECON 300 or ECON B200 at Bryn Mawr; MATH 121 (or MATH 216) is desirable

**ECON H378 JUNIOR RESEARCH SEMINAR: SPORTS AS AN ECONOMICS LABORATORY (1.0 Credit)**

*Anne Preston*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

A research seminar analyzing contemporary journal articles which use sports data to answer important economics questions in industrial organization, labor economics, game theory, and behavioral economics. Prerequisite(s): Econ 300 or Econ B200 at Bryn Mawr; Econ 304 (can be taken concurrently); Math 118 (or equivalent of 2 semesters of college calculus), or instructor consent

(Offered: Fall 2020)

**ECON H379 JUNIOR RESEARCH SEMINAR: THE FEDERAL RESERVE (1.0 Credit)**

*Carola Binder*

**Division:** Social Science

**Domain(s):** A: Meaning, Interpretation (Texts); B: Analysis of the Social World; C: Physical and Natural Processes

This course covers the history of central banking, with emphasis on the Federal Reserve. We will study the creation and evolution of the Fed, its role in economic and financial crises, and current debates in monetary policy. Prerequisite(s): ECON 302 or ECON B202 at Bryn Mawr; ECON 304 (can be taken concurrently). MATH 118 (or equivalent of 2 semesters of college calculus)

(Offered: Spring 2021)

**ECON H382 JUNIOR RESEARCH SEMINAR: INTERNATIONAL MACROECONOMICS (1.0 Credit)**

*Staff*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

This course covers fundamental topics in international money and finance and open economy macroeconomics. We will learn about balance of payments, foreign exchange rates, interest rates, purchasing power parity, financial crises and fiscal and monetary policy in an open economy. Prerequisite(s): Econ H302 or Econ B202 at Bryn Mawr; Math 118 or equivalent.

**ECON H382B JUNIOR RESEARCH SEMINAR: INTERNATIONAL MACROECONOMICS (1.0 Credit)**

*Staff*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

This course covers fundamental topics in international money and finance and open economy macroeconomics. We will learn about balance of payments, foreign exchange rates, interest rates, purchasing power parity, financial crises and fiscal and monetary policy in an open economy. Prerequisite(s): Econ H302 or Econ B202 at Bryn Mawr; Math 118 or equivalent.

**ECON H396A RESEARCH SEMINAR (1.0 Credit)**

*Anne Preston, Carola Binder, David Owens, Saleha Jilani*

**Division:** Social Science

Must be a senior Economics major. Prerequisite(s): ECON 203 or 204 or MATH 203 or SOCL 215 or PSYC 200 or Bryn Mawr's ECON B253; ECON 300 or ECON B200 at Bryn Mawr; ECON 302 or ECON B202 at Bryn Mawr; ECON 304 (can be

taken concurrently); MATH 118 (or equivalent of 2 semesters of college calculus

(Offered: Fall 2020)

**ECON H396B RESEARCH SEMINAR (1.0 Credit)**

*Anne Preston, Carola Binder, David Owens, Giri Parameswaran, Richard Ball, Saleha Jilani, Vladimir Kontorovich*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World

Must be a senior Economics major. Prerequisite(s): ECON 304; an ECON 37X Jr. Research Seminar; ECON 396A.

(Offered: Fall 2020, Spring 2021)

**ECON H400 ADVANCED TOPICS IN ECONOMICS (1.0 Credit)**

*Giri Parameswaran*

**Division:** Social Science

**Domain(s):** B: Analysis of the Social World; C:

Physical and Natural Processes

Reading seminar in which students present seminal papers from a chosen sub-field of economics.

Prerequisite(s): Instructor permission

(Offered: Fall 2020)

**ECON H480 INDEPENDENT STUDY (0.5 Credit)**

*Staff*

(Offered: Spring 2021)