Economics

Economics is a social science that analyzes how people, businesses, and governments make the best of limited resources, and how they make choices when faced with tradeoffs. Microeconomics studies these decision-makers and the markets in which they interact, while macroeconomics studies the workings of the economy as a whole. Economics provides tools for understanding public policy issues like inequality, poverty, education, health, taxes, trade, regulation, and the environment.

For additional information, please visit the department's website: http://www.brown.edu/Departments/Economics/

Economics Concentration Requirements

Economics is the study of how individuals, businesses, and governments allocate resources to satisfy their objectives. The study of economics helps students understand markets, firms, financial organizations, and public debate about economic policy, including taxation, government expenditure, trade, globalization, health, and welfare. The concentration in Economics prepares students for graduate study in fields such as business and law, for graduate study leading to teaching and research in economics, and can be a stepping-stone to employment in business, finance, non-profit, and government organizations. Students may choose the standard concentration, the business track, or the public policy track, all of which have a corresponding professional track. If you are interested in declaring a concentration in Economics, please refer to this page for more information regarding the process.

Students are required to begin with ECON 0110, an introductory course that stresses current economic issues, and the concepts and principles of economic analysis. Intermediate level courses in microeconomics (ECON 1110 or ECON 1130), macroeconomics (ECON 1210), and econometrics (ECON 1620 followed by ECON 1629 or ECON 1630) round out the list of foundation courses for the concentration. Economics concentrators must also fulfill a math requirement (ECON 0170).

The economics department sponsors a number of concentration options. The most popular is the standard economics concentration, described below. The standard concentration has an optional Business Economics track, as well as a Public Policy track, both described below. Three additional concentration options are administered jointly with other departments and are described separately under their respective titles. They are the concentrations in applied mathematics–economics, mathematical-economics , and computer science–economics. The first two are especially recommended for students interested in graduate study in economics.

All concentrators in economics programs are encouraged to consult their concentration advisors regularly. Economics concentrators who wish to study abroad should consult first with the department transfer credit advisor.

Standard Economics Concentration

ECON 0110	Principles of Economics [1]	1
ECON 0170	Essential Mathematics for Economics	1
or MATH 0100	Single Variable Calculus, Part II	
or a higher-level math course. [2]		
ECON 1110	Intermediate Microeconomics	1
or ECON 1130	Intermediate Microeconomics (Mathematical)	
ECON 1210	Intermediate Macroeconomics	1
ECON 1620	Introduction to Econometrics	1
or MATH 1620	Mathematical Statistics	
or APMA 1650	Introduction to Probability and Statistics with Calculus	
or APMA 1655	Introduction to Probability and Statistics with Theory	
ECON 1629	Applied Research Methods for Economists	1
or ECON 1630	Mathematical Econometrics I	
At least five additional 1000-level Economics courses. [3]		5
Total Credits		**11**

1. Students who place out of ECON 0110 on the basis of qualifying scores on the AP, IB, or A-level exams must take an additional 1000-level course (6 instead of 5).
2. Students can satisfy the mathematics requirement with qualifying scores on the AP, IB, or A-level exams (but not the math department's self placement exam). Note that certain advanced economics courses may impose additional math prerequisites.
3. Students may apply, at most, one Economics course whose number is in the range of 1000 to 1099 toward the concentration. Note that ECON 1960 (thesis course) does not count toward the concentration.

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Business Economics Track

ECON 0110	Principles of Economics [1]	1
ECON 0170	Essential Mathematics for Economics	1
or MATH 0100	Single Variable Calculus, Part II	
or a higher level math course		
ECON 0710	Financial Accounting	1
ECON 1110	Intermediate Microeconomics	1
or ECON 1130	Intermediate Microeconomics (Mathematical)	
ECON 1210	Intermediate Macroeconomics	1
ECON 1420	Industrial Organization [2]	1
ECON 1620	Introduction to Econometrics	1
or APMA 1650	Introduction to Probability and Statistics with Calculus	
or APMA 1655	Introduction to Probability and Statistics with Theory	
or MATH 1620	Mathematical Statistics	
ECON 1629	Applied Research Methods for Economists	1
or ECON 1630	Mathematical Econometrics I	
ECON 1710	Investments I	1
ECON 1720	Corporate Finance	1
Two Business Economics electives from the following list:		2
ECON 1090	Introduction to Game Theory	
ECON 1310	Labor Economics	
ECON 1400	The Economics of Mass Media	
ECON 1450	Economic Organizations and Economic Systems	
ECON 1465	Antitrust and Competition	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1540	International Trade	
ECON 1550	International Finance	
ECON 1660	Big Data	
ECON 1730	Venture Capital, Private Equity, and Entrepreneurship	
ECON 1740	Mathematical Finance	
ECON 1750	Investments II	
ECON 1760	Financial Institutions	
ECON 1770	Crisis Economics	
ECON 1780	Advanced Topics in Corporate Finance	
ECON 1805	Experimental and Behavioral Economics	

ECON 1820	Theory of Behavioral Economics	
ECON 1830	Behavioral Finance	
ECON 1870	Game Theory and Applications to Economics	
Total Credits		**12**

1 Students who place out of ECON 0110 on the basis of qualifying scores on the AP, IB, or A level exams must take a sixth 1000-level Economics elective (which need not come from the Business Economics group). Note that at most one economics elective in the 1000-1099 range may be applied towards the concentration.

2 Or Econ 1460, if previously taken (it is not being offered in the near future).

3 Students can satisfy the mathematics requirement with qualifying scores on the AP, IB, or A-levels exams (but not the Math department's self placement exam). Note the certain advanced economics courses may impose additional math prerequisites.

4 Students may apply, at most, one Economics course whose number is in the range of 1000 to 1099 toward the concentration. Note that ECON 1960 (thesis course) does not count toward the concentration.

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Public Policy Track

ECON 0110	Principles of Economics [1]	1
ECON 0170	Essential Mathematics for Economics [2]	1
or MATH 0100	Single Variable Calculus, Part II	
ECON 1110	Intermediate Microeconomics	1
or ECON 1130	Intermediate Microeconomics (Mathematical)	
ECON 1210	Intermediate Macroeconomics	1
ECON 1620	Introduction to Econometrics [3]	1
ECON 1629	Applied Research Methods for Economists	1
or ECON 1630	Mathematical Econometrics I	
Five Public Policy Electives from the list below: [4]		5
ECON 1000	Using Big Data to Solve Economic and Social Problems	
ECON 1070	Race, Crime, and Punishment in America	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1310	Labor Economics	
ECON 1330	Gender and Development	
ECON 1340	Economics of Global Warming	
ECON 1345	Climate Change and the Commons	
ECON 1350	Environmental Economics and Policy	
ECON 1355	Environmental Issues in Development Economics	
ECON 1360	Research Seminar in Health Economics	
ECON 1370	Race and Inequality in the United States	
ECON 1385	Intergenerational Poverty in America	
ECON 1390	Inequality of Income, Wealth, and Health in the United States	
ECON 1410	Urban Economics	
ECON 1420	Industrial Organization	
ECON 1430	The Economics of Social Policy	
ECON 1440	The Economic Analysis of Political Behavior	
ECON 1480	Public Economics	
ECON 1500	Current Global Macroeconomic Challenges	
ECON 1520	Culture, History and Comparative Development	
ECON 1530	Health, Hunger and the Household in Developing Countries	
ECON 1540	International Trade	
ECON 1550	International Finance	
ECON 1560	Economic Growth	
ECON 1570	The Economics of Latin Americans	
ECON 1600	Education, the Economy and School Reform	
Interdisciplinary requirement. Two courses outside of the economics department that relate to better understanding the implementation and/or evaluation of public policies (may be below or above 1000-level).Several departments offer such courses, and availability varies from year to year. Some pre-approved options are		2
AFRI 1920	Health Inequality in Historical Perspective	
CPSY 0220	Making Decisions	
CPSY 0700	Social Psychology	
HSP 0310	Health Care in the United States	
HSP 0330	Health Law and Policy	
EPI 0850	Fundamentals of Epidemiology	
POLS 0010	Introduction to the American Political Process	
POLS 1050	Ethics and Public Policy	
POLS 1823Z	Gender and Public Policy	
SOC 1330	Remaking the City	
URBN 0210	The City: An Introduction to Urban Studies	
Students may also request advisor permission for other courses		
A capstone project in the senior year. This can be satisfied in different ways: (a) the capstone is automatically fulfilled if one of the public policy electives completed is designated as a capstone course (see the list of capstone courses on the economics department website); or (b) a capstone project is otherwise arranged and completed for a public policy elective; or (c) an honors thesis is completed, under the guidelines of honors in the economics concentration; or (d) completion of an undergraduate research assistantship (URA). In cases (a), (b) and (d), a capstone form must be submitted to the department. [5]		
Total Credits		**13**

1 Students who place out of ECON 0110 on the basis of qualifying scores on the AP, IB, or A level exams must take a sixth 1000-level Economics elective (which need not come from the Public Policy group).

2 Students can satisfy the mathematics requirement with qualifying scores on the AP, IB, or A-levels exams (but not the Math department's self placement exam). Note the certain advanced economics courses may impose additional math prerequisites.

3 APMA 1650, APMA 1655, CSCI 1450, or MATH 1620 can substitute for ECON 1620

4 Note that at most one economics elective in the 1000-1099 range may be applied towards the concentration.

5 A complete list of Capstone courses can be found on the Economics Department website (https://economics.brown.edu/academics/undergraduate/honors).

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Honors

To graduate with honors, students must satisfy the following requirements **by the end of Junior year**:

- Complete at least 70% of the courses required for the concentration.
- Have earned a grade of "A" or "S with distinction" in at least 70% of grades earned in the economics concentration, or 50% in the joint concentrations in APMA-Econ, CS-Econ, and Math-Econ (excluding courses transferred to Brown without a grade, and those taken Spring 2020).
- *Economics Concentrators* must find a faculty thesis advisor in the economics department.
- *Joint Concentrators* must find a primary faculty thesis advisor in either economics or the partner department. CS-Econ concentrators must have a secondary reader in the other department by the fall of senior year. APMA-Econ and Math-Econ do not require a secondary reader, unless the primary advisor deems it necessary. Joint concentrators need to satisfy the honors requirements of the economics department if their thesis advisor is in the economics department; while they need to satisfy the honors requirements of the partner department if their thesis advisor is in the partner department.

During Senior year, thesis writers must:

- Enroll in ECON 1960 with their thesis advisor in the fall and spring semesters.
- Submit a thesis proposal to their thesis advisor and the Undergraduate Program Coordinator by mid-September.
- Submit their work in progress to their thesis advisor and the Undergraduate Program Coordinator by mid-December.
- Depending on the nature of the thesis work, the thesis adviser may require the student to successfully complete one or more courses from among the data methods (https://economics.brown.edu/academics/undergraduate/concentrations/combined/course-groupings), mathematical economics (https://economics.brown.edu/academics/undergraduate/concentrations/combined/course-groupings) and/or financial economics (https://economics.brown.edu/academics/undergraduate/concentrations/combined/course-groupings) course groups in the fall of senior year, if they have not already done so.
- Complete an honors thesis by the deadline agreed upon with their advisor and obtain the final approval of their advisor by mid-April.
- Thesis writers are encouraged, but not required, to participate in the departmental Honors Thesis Presentation session held in May, with a brief presentation of their work and findings.
- *Please refer to the Economics Department Honors Thesis page (https://economics.brown.edu/academics/undergraduate/honors-and-capstones/thesis) for specific deadlines.

Applied Mathematics-Economics Concentration Requirements

The Applied Mathematics-Economics concentration is designed to reflect the mathematical and statistical nature of modern economic theory and empirical research. If you are interested in declaring a concentration in Applied Mathematics-Economics, please refer to this page (https://economics.brown.edu/academics/undergraduate/concentrations/declaring) for more information regarding the process.

Requirements for the Bachelor of Arts

Prerequisites:

MATH 0100	Single Variable Calculus, Part II
APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians
or MATH 0180	Multivariable Calculus
or MATH 0200	Multivariable Calculus (Physics/Engineering)
or MATH 0350	Multivariable Calculus With Theory
MATH 0520	Linear Algebra
or APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians

Course Requirements:

Applied Mathematics Requirements		
APMA 0355	Applied Ordinary Differential Equations with Theory	1
APMA 0365	Applied Partial Differential Equations I with Theory	1
Select one of the following:		1
APMA 0160	Introduction to Scientific Computing (preferred)	
APMA 0200	Introduction to Modeling	
CSCI 0111	Computing Foundations: Data	
CSCI 0150	Introduction to Object-Oriented Programming and Computer Science	
CSCI 0170	Computer Science: An Integrated Introduction	
CSCI 0190	Accelerated Introduction to Computer Science	
Select one of the following:		1
APMA 1200	Operations Research: Probabilistic Models	
or APMA 1210	Operations Research: Deterministic Models	
APMA 1655	Introduction to Probability and Statistics with Theory [1]	1
One 1000-level or higher APMA course (except APMA1910, APMA1920, and research/independent study)		1
Economics Requirements:		**3**
ECON 1130	Intermediate Microeconomics (Mathematical) [2]	
ECON 1210	Intermediate Macroeconomics	
ECON 1630	Mathematical Econometrics I	
Two 1000-level courses from the "mathematical-economics" group: [3]		2
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1560	Economic Growth	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	
One 1000-level course from the "data methods" group: [3]		1
ECON 1301	Economics of Education I	
ECON 1310	Labor Economics	
ECON 1315	Health, Education, and Social Policy	
ECON 1330	Gender and Development	
ECON 1340	Economics of Global Warming	
ECON 1345	Climate Change and the Commons	

ECON 1355	Environmental Issues in Development Economics	
ECON 1360	Research Seminar in Health Economics	
ECON 1375	Inequality of Opportunity in the US	
ECON 1385	Intergenerational Poverty in America	
ECON 1400	The Economics of Mass Media	
ECON 1410	Urban Economics	
ECON 1430	The Economics of Social Policy	
ECON 1510	Economic Development	
ECON 1520	Culture, History and Comparative Development	
ECON 1530	Health, Hunger and the Household in Developing Countries	
ECON 1629	Applied Research Methods for Economists	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1825	Behavioral Economics and Public Policy	
ECON 1830	Behavioral Finance	
One additional 1000-level economics course. [4]		1
Total Credits		**13**

1 Students can also use APMA 1650 but must also complete the APMA 1655 online bridgework course, pass the in-person bridgework exam that is offered once per semester, and have taken multivariable calculus and linear algebra

2 Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required

3 No course may be used to simultaneously satisfy the "mathematical economics," and "data methods" requirements.

4 Note that ECON 1620, ECON 1960, and ECON 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

Honors

Applied Math-Economics concentrators who wish to pursue honors must find a primary faculty thesis advisor in either Economics or Applied Math. They will be held to the Honors requirements of their advisor's department. Joint concentrators in Applied Mathematics-Economics with an Economics thesis advisor should follow the requirements published here (https://economics.brown.edu/academics/undergraduate/honors-and-capstones/thesis), while concentrators with an Applied Math thesis advisor should follow the requirements published here (https://www.brown.edu/academics/applied-mathematics/undergraduate-program/honors).

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Requirements for the Bachelor of Science

Prerequisites:		
MATH 0100	Single Variable Calculus, Part II	
MATH 0520	Linear Algebra	
or APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians	
APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians	
or MATH 0180	Multivariable Calculus	
or MATH 0200	Multivariable Calculus (Physics/Engineering)	
or MATH 0350	Multivariable Calculus With Theory	
Course Requirements:		
Applied Mathematics Requirements		
APMA 0355	Applied Ordinary Differential Equations with Theory	1
APMA 0365	Applied Partial Differential Equations I with Theory	
Select one of the following:		1
APMA 0160	Introduction to Scientific Computing (preferred)	
APMA 0200	Introduction to Modeling	
CSCI 0111	Computing Foundations: Data	
CSCI 0190	Accelerated Introduction to Computer Science	
CSCI 0150	Introduction to Object-Oriented Programming and Computer Science	
CSCI 0170	Computer Science: An Integrated Introduction	
Select one of the following:		1
APMA 1200	Operations Research: Probabilistic Models	
or APMA 1210	Operations Research: Deterministic Models	
APMA 1655	Introduction to Probability and Statistics with Theory [1]	1
Two 1000-level or higher APMA or MATH courses with at least one in APMA (except APMA1910, APMA1920, MATH1090, MATH1910 and research/independent study). At most one of APMA 1000, APMA 1001, MATH 1000, MATH 1001 and at most one of APMA 1650, APMA 1655, MATH 1210, MATH 1610 can be used for concentration credit		2
Economics Requirements:		
ECON 1130	Intermediate Microeconomics (Mathematical) [2]	1
ECON 1210	Intermediate Macroeconomics	1
ECON 1630	Mathematical Econometrics I	1
Three 1000-level courses from the "mathematical-economics" group: [3]		3
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1560	Economic Growth	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	

One 1000-level course from the "data methods" group: [3]		1
ECON 1301	Economics of Education I	
ECON 1310	Labor Economics	
ECON 1315	Health, Education, and Social Policy	
ECON 1330	Gender and Development	
ECON 1340	Economics of Global Warming	
ECON 1345	Climate Change and the Commons	
ECON 1355	Environmental Issues in Development Economics	
ECON 1360	Research Seminar in Health Economics	
ECON 1375	Inequality of Opportunity in the US	
ECON 1385	Intergenerational Poverty in America	
ECON 1400	The Economics of Mass Media	
ECON 1410	Urban Economics	
ECON 1430	The Economics of Social Policy	
ECON 1510	Economic Development	
ECON 1520	Culture, History and Comparative Development	
ECON 1530	Health, Hunger and the Household in Developing Countries	
ECON 1629	Applied Research Methods for Economists	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1825	Behavioral Economics and Public Policy	
ECON 1830	Behavioral Finance	
Two additional 1000-level economics courses [4]		2
Total Credits		**15**

1 Students can also use APMA 1650 but must also complete the APMA 1655 online bridgework course, pass the in-person bridgework exam that is offered once per semester, and have taken multivariable calculus and linear algebra.

2 Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required

3 No course may be used to simultaneously satisfy the "mathematical economics" and "data methods" requirements.

4 Students may apply, at most, one Economics course whose number is in the range of 1000 to 1099 toward the concentration. Note that ECON 1620, ECON 1960, and ECON 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

Honors

Applied Math-Economics concentrators who wish to pursue honors must find a primary faculty thesis advisor in either Economics or Applied Math. They will be held to the Honors requirements of their advisor's department. Joint concentrators in Applied Mathematics-Economics with an Economics thesis advisor should follow the requirements published here (https://economics.brown.edu/academics/undergraduate/honors-and-capstones/thesis), while concentrators with an Applied Math thesis advisor should follow the requirements published here (https://www.brown.edu/academics/applied-mathematics/undergraduate-program/honors).

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Standard program for the A.B. degree (Mathematical Finance track):

Prerequisites:		
MATH 0100	Single Variable Calculus, Part II	
MATH 0520	Linear Algebra	
or APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians	
APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians	
or MATH 0180	Multivariable Calculus	
or MATH 0200	Multivariable Calculus (Physics/Engineering)	
or MATH 0350	Multivariable Calculus With Theory	
Course Requirements: 13 Courses: 6 Applied Math and 7 Economics		
Applied Mathematics Requirements		
APMA 0355	Applied Ordinary Differential Equations with Theory	1
and		
APMA 0365	Applied Partial Differential Equations I with Theory	1
Select one of the following:		1
APMA 0160	Introduction to Scientific Computing (preferred)	
APMA 0200	Introduction to Modeling	
CSCI 0111	Computing Foundations: Data	
CSCI 0150	Introduction to Object-Oriented Programming and Computer Science	
CSCI 0170	Computer Science: An Integrated Introduction	
CSCI 0190	Accelerated Introduction to Computer Science	
APMA 1200	Operations Research: Probabilistic Models	1
APMA 1655	Introduction to Probability and Statistics with Theory [1]	1
Select one of the following:		1
APMA 1160	An Introduction to Numerical Optimization	
APMA 1180	Introduction to Numerical Solution of Differential Equations	
APMA 1210	Operations Research: Deterministic Models	
APMA 1330	Applied Partial Differential Equations II	
APMA 1360	Applied Dynamical Systems	
APMA 1660	Statistical Inference II	
APMA 1670	Statistical Analysis of Time Series	
APMA 1680	Nonparametric Statistics	
APMA 1690	Computational Probability and Statistics	
APMA 1710	Information Theory	
APMA 1720	Monte Carlo Simulation with Applications to Finance (preferred)	
APMA 1740	Recent Applications of Probability and Statistics	
APMA 1860	Graphs and Networks	
MATH 1010	Analysis: Functions of One Variable	
APMA 193X, 194X [4]	Senior Seminar series, depending on topic	
Economics Requirements:		
ECON 1130	Intermediate Microeconomics (Mathematical) [3]	1
ECON 1210	Intermediate Macroeconomics	1

ECON 1630	Mathematical Econometrics I	1
Select two 1000-level courses from the "financial economics" group: [2]		2
ECON 1710	Investments I	
ECON 1720	Corporate Finance	
ECON 1730	Venture Capital, Private Equity, and Entrepreneurship	
ECON 1750	Investments II	
ECON 1760	Financial Institutions	
ECON 1770	Crisis Economics	
ECON 1780	Advanced Topics in Corporate Finance	
ECON 1830	Behavioral Finance	
Select one 1000-level course from the "mathematical economics" group: [2]		1
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1560	Economic Growth	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	
Select one 1000-level course from the "data methods" group: [2]		1
ECON 1301	Economics of Education I	
ECON 1310	Labor Economics	
ECON 1315	Health, Education, and Social Policy	
ECON 1330	Gender and Development	
ECON 1340	Economics of Global Warming	
ECON 1345	Climate Change and the Commons	
ECON 1355	Environmental Issues in Development Economics	
ECON 1360	Research Seminar in Health Economics	
ECON 1375	Inequality of Opportunity in the US	
ECON 1385	Intergenerational Poverty in America	
ECON 1400	The Economics of Mass Media	
ECON 1410	Urban Economics	
ECON 1430	The Economics of Social Policy	
ECON 1510	Economic Development	
ECON 1520	Culture, History and Comparative Development	
ECON 1530	Health, Hunger and the Household in Developing Countries	
ECON 1629	Applied Research Methods for Economists	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1825	Behavioral Economics and Public Policy	
ECON 1830	Behavioral Finance	
Total Credits		**13**

[1] Students can also use APMA 1650 but must also complete the APMA 1655 online bridgework course, pass the in-person bridgework exam that is offered once per semester, and have taken multivariable calculus and linear algebra

[2] No course may be used to simultaneously satisfy any two or more of the "financial economics," "mathematical economics," and "data methods" requirements.

[3] Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required

[4] Requires written approval of the Director of Undergraduate Studies in Economics. APMA 1910 is not permitted.

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Standard program for the Sc.B. degree (Mathematical Finance track):

Prerequisites:		
MATH 0100	Single Variable Calculus, Part II	
MATH 0520	Linear Algebra	
or APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians	
APMA 0260	Linear Algebra and Multivariable Calculus for Applied Mathematicians	
or MATH 0180	Multivariable Calculus	
or MATH 0200	Multivariable Calculus (Physics/Engineering)	
or MATH 0350	Multivariable Calculus With Theory	
Course Requirements: 16 courses: 7 Applied Math and 9 Economics		
Applied Mathematics requirements:		
APMA 0355	Applied Ordinary Differential Equations with Theory	1
and		
APMA 0365	Applied Partial Differential Equations I with Theory	1
Select one of the following:		1
APMA 0160	Introduction to Scientific Computing (preferred)	
APMA 0200	Introduction to Modeling	
CSCI 0111	Computing Foundations: Data	
CSCI 0150	Introduction to Object-Oriented Programming and Computer Science	
CSCI 0170	Computer Science: An Integrated Introduction	
CSCI 0190	Accelerated Introduction to Computer Science	
APMA 1200	Operations Research: Probabilistic Models	1
APMA 1655	Introduction to Probability and Statistics with Theory [1]	1
Select two of the following:		2
APMA 1160	An Introduction to Numerical Optimization	

APMA 1180	Introduction to Numerical Solution of Differential Equations	
APMA 1210	Operations Research: Deterministic Models	
APMA 1330	Applied Partial Differential Equations II	
APMA 1360	Applied Dynamical Systems	
APMA 1660	Statistical Inference II	
APMA 1670	Statistical Analysis of Time Series	
APMA 1680	Nonparametric Statistics	
APMA 1690	Computational Probability and Statistics	
APMA 1710	Information Theory	
APMA 1720	Monte Carlo Simulation with Applications to Finance (preferred)	
APMA 1740	Recent Applications of Probability and Statistics	
APMA 1860	Graphs and Networks	
MATH 1010	Analysis: Functions of One Variable	
APMA 193X, 194X[4]	Senior Seminar series, depending on topic	
Economics Requirements:		
ECON 1130	Intermediate Microeconomics (Mathematical) [3]	1
ECON 1210	Intermediate Macroeconomics	1
ECON 1630	Mathematical Econometrics I	1
Select three 1000-level courses from the "financial economics" group: [2]		3
ECON 1710	Investments I	
ECON 1720	Corporate Finance	
ECON 1730	Venture Capital, Private Equity, and Entrepreneurship	
ECON 1750	Investments II	
ECON 1760	Financial Institutions	
ECON 1770	Crisis Economics	
ECON 1780	Advanced Topics in Corporate Finance	
ECON 1830	Behavioral Finance	
Select two 1000-level courses from the "mathematical economics" group: [2]		2
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1560	Economic Growth	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	
Select one 1000-level course from the "data methods" group: [2]		1
ECON 1301	Economics of Education I	
ECON 1310	Labor Economics	
ECON 1315	Health, Education, and Social Policy	
ECON 1330	Gender and Development	
ECON 1345	Climate Change and the Commons	
ECON 1340	Economics of Global Warming	
ECON 1355	Environmental Issues in Development Economics	
ECON 1360	Research Seminar in Health Economics	
ECON 1375	Inequality of Opportunity in the US	
ECON 1385	Intergenerational Poverty in America	
ECON 1400	The Economics of Mass Media	
ECON 1410	Urban Economics	
ECON 1430	The Economics of Social Policy	
ECON 1510	Economic Development	
ECON 1520	Culture, History and Comparative Development	
ECON 1530	Health, Hunger and the Household in Developing Countries	
ECON 1629	Applied Research Methods for Economists	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1825	Behavioral Economics and Public Policy	
ECON 1830	Behavioral Finance	
Total Credits		**16**

1 Students can also use APMA 1650 but must also complete the APMA 1655 online bridgework course, pass the in-person bridgework exam that is offered once per semester, and have taken multivariable calculus and linear algebra

2 No course may be used to simultaneously satisfy any two or more of the "financial economics," "mathematical economics," and "data methods" requirements.

3 Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required

4 Requires written approval of the Director of Undergraduate Studies in Economics. APMA 1910 is not permitted.

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Computer Science-Economics Concentration Requirements

The joint Computer Science-Economics concentration exposes students to the theoretical and practical connections between computer science and economics. It prepares students for professional careers that incorporate aspects of economics and computer technology and for academic careers conducting research in areas that emphasize the overlap between the two fields. Concentrators may choose to pursue either the A.B. or the Sc.B. degree. While the A.B. degree allows students to explore the two disciplines by taking advanced courses in both departments, its smaller number of required courses is compatible with a liberal education. The Sc.B. degree achieves greater depth in both computer science and economics by requiring more courses, and it offers students the opportunity to creatively integrate both disciplines through a design requirement. If you are interested in declaring a concentration in Computer Science-Economics, please refer to this page for more information

regarding the process. For more information about the CS Pathways, see this page.

Standard Program for the Sc.B. degree.

Prerequisites (3 courses):		
MATH 0100	Single Variable Calculus, Part II	
MATH 0520	Linear Algebra	
or MATH 0540	Linear Algebra With Theory	
or CSCI 0530	Coding the Matrix: An Introduction to Linear Algebra for Computer Science	
ECON 0110	Principles of Economics	
Required Courses: 17 courses: 8 Computer Science, 8 Economics, and a Capstone		
CSCI 1450	Advanced Introduction to Probability for Computing and Data Science [1]	1
or APMA 1650	Introduction to Probability and Statistics with Calculus	
or APMA 1655	Introduction to Probability and Statistics with Theory	
Select one of the following Series:		2
Series A		
CSCI 0150 & CSCI 0200	Introduction to Object-Oriented Programming and Computer Science and Program Design with Data Structures and Algorithms	
Series B		
CSCI 0170 & CSCI 0200	Computer Science: An Integrated Introduction and Program Design with Data Structures and Algorithms	
Series C		
CSCI 0190	Accelerated Introduction to Computer Science (and an additional CS course not otherwise used to satisfy a concentration requirement; this course may be CSCI 0200, a Foundations CS course, or a 1000-level course.)	
Series D		
CSCI 0111 & CSCI 0200	Computing Foundations: Data and Program Design with Data Structures and Algorithms	
Two courses, touching two different Foundations areas		2
a. Algorithms/Theory Foundations		
CSCI 0500	Data Structures, Algorithms, and Intractability: An Introduction	
b. AI/Machine Learning/Data Science Foundations, No concentration credit for 1410, 1411		
CSCI 0410	Foundations of AI and Machine Learning	
c. Systems Foundations, Concentration credit not for both 300, 330		
CSCI 0300	Fundamentals of Computer Systems	
or CSCI 0320	Introduction to Software Engineering	
or CSCI 0330	Introduction to Computer Systems	
Three 1000-level CSCI courses, which must be technical courses as defined in concentration handbook.. One of these can be an additional 100-level Foundations course.		3
ECON 1130	Intermediate Microeconomics (Mathematical) [2]	1
ECON 1210	Intermediate Macroeconomics	1
ECON 1630	Mathematical Econometrics I	1
Three courses from the "mathematical economics" group (CSCI 1951K can be counted as one of them, if it has not been used to satisfy the computer science requirements of the concentration and if the student has taken either ECON 1470 or ECON 1870):		3
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1560	Economic Growth	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	
Two additional 1000-level Economics courses excluding 1620, 1960, 1970 [3]		2
One capstone course in either CS or Economics: a one-semester course, normally taken in the student's last semester undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic (preferably at the intersection of computer science and economics) in depth, to produce a culminating artifact such as a paper or software project. A senior thesis, which involved two semesters of work, may count as a capstone.		1
Total Credits		**17**

1 Concentration credit will be given for only one of APMA 1650, APMA 1655, and CSCI 1450.

2 Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required

3 Students may apply, at most, one Economics course whose number is in the range of 1000 to 1099 toward the concentration. Note that ECON 1620, ECON 1960, and ECON 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

Honors

Students who meet stated requirements are eligible to write an honors thesis in their senior year. Students should consult the listed honors requirements of whichever of the two departments their primary thesis advisor belongs to, at the respective departments' websites. If the primary thesis advisor belongs to Economics (Computer Science), then students must have a reader in the Computer Science (respectively, Economics) department.

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

The joint Computer Science-Economics concentration exposes students to the theoretical and practical connections between computer science and economics. It prepares students for professional careers that incorporate

aspects of economics and computer technology and for academic careers conducting research in areas that emphasize the overlap between the two fields. Concentrators may choose to pursue either the A.B. or the Sc.B. degree. While the A.B. degree allows students to explore the two disciplines by taking advanced courses in both departments, its smaller number of required courses is compatible with a liberal education. The Sc.B. degree achieves greater depth in both computer science and economics by requiring more courses, and it offers students the opportunity to creatively integrate both disciplines through a design requirement. If you are interested in declaring a concentration in Computer Science-Economics, please refer to this page for more information regarding the process. For more information about the CS Pathways, see this page.

Standard Program for the A.B. degree:

Prerequisites (3 courses):

MATH 0100	Single Variable Calculus, Part II	
MATH 0520	Linear Algebra	
or MATH 0540	Linear Algebra With Theory	
or CSCI 0530	Coding the Matrix: An Introduction to Linear Algebra for Computer Science	
ECON 0110	Principles of Economics	

Required Courses: 13 courses: 7 Computer Science and 6 Economics

CSCI 1450	Advanced Introduction to Probability for Computing and Data Science	1
or APMA 1650	Introduction to Probability and Statistics with Calculus	
or APMA 1655	Introduction to Probability and Statistics with Theory	
Select one of the following series:		2
Series A		
CSCI 0150 & CSCI 0200	Introduction to Object-Oriented Programming and Computer Science and Program Design with Data Structures and Algorithms	
Series B		
CSCI 0170 & CSCI 0200	Computer Science: An Integrated Introduction and Program Design with Data Structures and Algorithms	
Series C		
CSCI 0190	Accelerated Introduction to Computer Science (and an additional CS course numbered 200 or above not otherwise used to satisfy a concentration requirement; this course may be CSCI 0200, a Foundations course, or a 1000-level course)	
Series D		
CSCI 0111 & CSCI 0200	Computing Foundations: Data and Program Design with Data Structures and Algorithms	
Two courses, touching two different Foundations areas:		2
a. Algorithms/Theory Foundations		
CSCI 0500	Data Structures, Algorithms, and Intractability: An Introduction	
b. AI/Machine Learning/Data Science Foundations.		
CSCI 0410	Foundations of AI and Machine Learning	
c. Systems Foundations. Concentration credit for only one of 300/330		
CSCI 0300	Fundamentals of Computer Systems	
or CSCI 0320	Introduction to Software Engineering	
or CSCI 0330	Introduction to Computer Systems	
Two 1000-level CSCI courses, which must be technical courses, as defined in concentration handbook.		2
ECON 1130	Intermediate Microeconomics (Mathematical) [1]	1
ECON 1210	Intermediate Macroeconomics	1
ECON 1630	Mathematical Econometrics I	1
Three courses from the "mathematical-economics" group: [2]		3
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	
or any graduate Economics course [3]		
Total Credits		**13**

1. Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required
2. CSCI 1951K can be counted as one of them, if it has not been used to satisfy the computer science requirements of the concentration and if the student has taken either ECON 1470 or ECON 1870.
3. Note that ECON 1620, ECON 1960, and ECON 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

Honors

Students who meet stated requirements are eligible to write an honors thesis in their senior year. Students should consult the listed honors requirements of whichever of the two departments their primary thesis advisor belongs to, at the respective departments' websites. If the primary thesis advisor belongs to Economics (Computer Science), then students must have a reader in the Computer Science (respectively, Economics) department.

Professional Track

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Mathematics-Economics Concentration Requirements

The Mathematics Economics concentration is designed to give a background in economic theory plus the mathematical tools needed to

analyze and develop additional theoretical constructions. The emphasis is on the abstract theory itself. Students may choose either the standard or the professional track, both award a Bachelor of Arts degree. If you are interested in declaring a concentration in Mathematics Economics, please refer to this page for more information regarding the process.

Standard Mathematics-Economics Concentration Honors:

Economics		
ECON 1130	Intermediate Microeconomics (Mathematical) [1]	1
ECON 1210	Intermediate Macroeconomics	1
ECON 1630	Mathematical Econometrics I	1
Two courses from the "mathematical-economics" group: [2]		2
ECON 1170	Welfare Economics and Social Choice Theory	
ECON 1225	Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies	
ECON 1255	Unemployment: Models and Policies	
ECON 1470	Bargaining Theory and Applications	
ECON 1490	Designing Internet Marketplaces	
ECON 1545	Topics in Macroeconomics, Development and International Economics	
ECON 1560	Economic Growth	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1750	Investments II	
ECON 1770	Crisis Economics	
ECON 1805	Experimental and Behavioral Economics	
ECON 1820	Theory of Behavioral Economics	
ECON 1860	The Theory of General Equilibrium	
ECON 1870	Game Theory and Applications to Economics	
One course from the "data methods" group: [2]		1
ECON 1301	Economics of Education I	
ECON 1310	Labor Economics	
ECON 1315	Health, Education, and Social Policy	
ECON 1330	Gender and Development	
ECON 1340	Economics of Global Warming	
ECON 1345	Climate Change and the Commons	
ECON 1355	Environmental Issues in Development Economics	
ECON 1360	Research Seminar in Health Economics	
ECON 1375	Inequality of Opportunity in the US	
ECON 1385	Intergenerational Poverty in America	
ECON 1400	The Economics of Mass Media	
ECON 1410	Urban Economics	
ECON 1430	The Economics of Social Policy	
ECON 1510	Economic Development	
ECON 1530	Health, Hunger and the Household in Developing Countries	
ECON 1629	Applied Research Methods for Economists	
ECON 1640	Mathematical Econometrics II	
ECON 1660	Big Data	
ECON 1670	Advanced Topics in Econometrics	
ECON 1680	Machine Learning, Text Analysis, and Economics	
ECON 1825	Behavioral Economics and Public Policy	
ECON 1830	Behavioral Finance	
Two additional 1000-level economics courses [3]		2
Mathematics		
Calculus: MATH 0180 or higher		1
Linear Algebra - one of the following:		1
MATH 0520	Linear Algebra	
MATH 0540	Linear Algebra With Theory	
Probability Theory - one of the following:		1
MATH 1210	Probability (Formerly MATH 1610)	
MATH 1620	Mathematical Statistics	
APMA 1650	Introduction to Probability and Statistics with Calculus	
Analysis - one of the following:		1
MATH 1010	Analysis: Functions of One Variable	
MATH 1630	Real Analysis I (Formerly MATH 1130)	
MATH 1640	Real Analysis II (Formerly MATH 1140)	
Differential Equations - one of the following:		1
MATH 1110	Ordinary Differential Equations	
MATH 1120	Partial Differential Equations	
One additional course from the Probability, Analysis, and Differential Equations courses listed above		1
Total Credits		**14**

1. Or ECON 1110 with permission. For students matriculating at Brown in Fall 2021 or later, note that if ECON 1110 is used, then one additional course from the mathematical-economics group will be required
2. No course may be "double-counted" to satisfy both the mathematical-economics and data methods requirement.
3. Students may apply, at most, one Economics course whose number is in the range of 1000 to 1099 toward the concentration. Note that ECON 1620, ECON 1960, and ECON 1970 (independent study) cannot be used for concentration credit. However, ECON 1620 and ECON 1960 can be used for university credit and up to two 1970s may be used for university credit.
4. MATH 1630 (formerly MATH 1130) is a prerequisite for MATH 1640 (formerly MATH 1140).

Honors

Students who meet stated requirements are eligible to write an honors thesis in their senior year. Students should consult the listed honors requirements of whichever of the two departments their primary thesis advisor belongs to, at the respective departments' websites.

Professional Track:

The requirements for all undergraduate professional tracks within concentrations are standardized and additional information can be found here:

https://bulletin.brown.edu/undergradproftrack/

Economics Graduate Program

The department of Economics offers a graduate program leading to the Doctor of Philosophy (Ph.D.) degree. Ph.D. students can earn the A.M. on the way to the Ph.D. or can receive the A.M. if they choose not to complete the Ph.D. program. The A.M. requires passing eight courses in the areas of Microeconomics, Macroeconomics, and Econometrics. Effective the 2020-21 academic year the department will also offers a Post-Baccalaureate Certificate in Economics to select cohort of students working as Research Associates within Economics.

For more information on admission and program requirements, please visit the following website:

http://www.brown.edu/academics/gradschool/programs/economics

Courses

ECON 0110. Principles of Economics.
Economics is a lens through which to understand society. This gateway course introduces the tools of economic analysis and their application to current events and issues. It covers both microeconomics and macroeconomics. Required for all economics concentrators, the course also offers an overview of the discipline for non-concentrators. Prerequisite for ECON 1110, 1130, 1210, and 1620.

Fall	ECON0110	S01	14197	MWF	9:00-9:50(09)	(A. Poterack)
Fall	ECON0110	C01	14198	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C02	14199	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C03	14200	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C04	14201	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C05	14202	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C06	14203	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C07	14204	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C08	14205	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C09	14206	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C10	14207	T	12:00-12:50	(A. Poterack)
Fall	ECON0110	C11	14208	M	6:00-6:50	(A. Poterack)
Fall	ECON0110	C12	14209	M	6:00-6:50	(A. Poterack)
Fall	ECON0110	C13	14210	M	6:00-6:50	(A. Poterack)
Fall	ECON0110	C14	14211	M	6:00-6:50	(A. Poterack)
Fall	ECON0110	C15	14212	M	6:00-6:50	(A. Poterack)
Fall	ECON0110	C16	14213	T	7:00-7:50	(A. Poterack)
Fall	ECON0110	C17	14214	T	7:00-7:50	(A. Poterack)
Fall	ECON0110	C18	14215	T	7:00-7:50	(A. Poterack)
Fall	ECON0110	C19	14216	T	7:00-7:50	(A. Poterack)
Fall	ECON0110	C20	14217	T	7:00-7:50	(A. Poterack)
Spr	ECON0110	S01	23934	MWF	10:00-10:50(03)	(R. Friedberg)
Spr	ECON0110	C01	23935	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C02	23936	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C03	23937	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C04	23938	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C05	23939	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C06	23940	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C07	23941	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C08	23942	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C09	23943	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C10	23944	T	12:00-12:50	(R. Friedberg)
Spr	ECON0110	C11	23945	M	6:00-6:50	(R. Friedberg)
Spr	ECON0110	C12	23946	M	6:00-6:50	(R. Friedberg)
Spr	ECON0110	C13	23947	M	6:00-6:50	(R. Friedberg)
Spr	ECON0110	C14	23948	M	6:00-6:50	(R. Friedberg)
Spr	ECON0110	C15	23949	M	6:00-6:50	(R. Friedberg)
Spr	ECON0110	C16	23950	T	7:00-7:50	(R. Friedberg)
Spr	ECON0110	C17	23951	T	7:00-7:50	(R. Friedberg)
Spr	ECON0110	C18	23952	T	7:00-7:50	(R. Friedberg)
Spr	ECON0110	C19	23953	T	7:00-7:50	(R. Friedberg)
Spr	ECON0110	C20	23954	T	7:00-7:50	(R. Friedberg)

ECON 0160. Intro to Finance - Money, Markets and You.
References to business, accounting, and financial markets are ubiquitous in our daily lives but are often intimidating to the outsider due to the specialized vocabulary and extensive use of abbreviations and acronyms (S&P 500, Fed Funds rate, EBITDA, EPS, P/E, DCF, EVA, etc.). However, regardless of our career choices, business and the financial markets play a role in our lives. All of us are consumers of financial services and we are all directly and indirectly impacted by capital allocation and market movements - it behooves us to be educated consumers, employees, business owners, and citizens.

ECON 0170. Essential Mathematics for Economics.
This course teaches the mathematical skills useful for upper level Economics classes. Emphasis is on acquisition of tools, problem solving, intuition, and applications rather than proofs.

This course satisfies the mathematics requirement for the Economics concentration, but does not serve as a prerequisite for upper level courses in Math, Applied Math, or other departments. Students planning further courses in those areas should take MATH 0100 or MATH 0170 (which also satisfy the Economics concentration requirement) instead. Ideally, ECON 0170 should be taken before ECON 1110, or at least simultaneously.

Fall	ECON0170	S01	14951	MWF	10:00-10:50(14)	(Y. Lin)
Spr	ECON0170	S01	24298	MWF	10:00-10:50(03)	(Y. Lin)

ECON 0180A. Using Big Data to Solve Economic and Social Problems.
This course will show how "big data" can be used to understand and address some of the most important social and economic problems of our time. The course will give students an introduction to frontier research and policy applications in economics and social science 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, as well as those with more experience. Topics include equality of opportunity, education, racial disparities, effects of the COVID-19 pandemic, health care, climate change, criminal justice, and tax policy. In order to be eligible, first year students would have to turn in the homework assignment and attend the first class.

ECON 0180D. The Power of Data (and its Limits).
Open any newspaper, any magazine, any academic journal, you'll find claims which rely on data. Government policies, economic data, health recommendations – all of these are based on some underlying data analysis. Data used in this context has enormous power, but it also has limits. Understanding these limits is key to using – but not mis-using – the power of data.

This first-year seminar will focus on understanding where data comes from, what we can learn from it, and what the limitations are. The course will emphasize policy-relevant economic and public health applications.

ECON 0180E. The Economics of Higher Education.
Some of the most important and controversial policy issues we face today concern higher education—such as whether college should be free, college debt should be forgiven, Federal Pell Grants should be increased, and colleges should embrace online instruction. This seminar will provide students with the skills and knowledge needed to understand and analyze these issues and is structured in two parts. In Part 1 (Basics), students will be given a grounding in how the U.S. system of higher education is structured and financed. Part 2 (Issues) will take a data-driven approach to assessing key questions about higher education, with applications to state and national policy issues. Guest speakers will occasionally visit the seminar to share their expertise with the class.

In order to be eligible, first year students would have to turn in the homework assignment and attend the first class.

See Class Notes for additional information

ECON 0200. 20th Century Political Economy.
This course covers major debates in the 20th century political economy, starting with the Bolshevik Revolution and the Treatise of Versailles. We examine the Great Depression, the New Deal, and Postwar economic planning in the US and UK. We then turn to consider important periods in the second half of the 20th century, including Indian Economic Planning, Bretton Woods, and inflation in the 1970s. The course ends with a consideration of trade, trade deficits, sovereign debt crises, and austerity. The aim is to develop an understanding of both sides of key debates in political economy.

ECON 0300. Health Disparities.
This seminar will examine the causes and consequences of racial and ethnic disparities in health in the United States, and their relationship to economic disparities. Although the course will be taught primarily from an economics perspective, it will draw on literature from sociology, demography and epidemiology. Enrollment determined by lottery.

ECON 0400. Race and Inequality in America.
This seminar examines the social disadvantage of African American in the United States from the perspectives of economics, though with due attention to sociology, politics and history. The course takes a holistic view of the relevant issues, ranging broadly. Quantitative economic analysis is used, but mastery of technique is not our primary focus. Issues to be examined include: Persistent racial disparities and their structural/historical origins Racial stereotypes, racial stigma, and racial justice Affirmative action policies Reparations for slavery, segregation and discrimination Race, Incarceration and American Values Race, crime, and urban policing Race and American politics

ECON 0510. Development and the International Economy.
A course designed primarily for students who do not plan to concentrate in economics but who seek a basic understanding of the economics of less developed countries, including savings and investment, health and education, agriculture and employment, and interactions with the world economy, including trade, international capital flows, aid, and migration.

ECON 0520. The Economics of Gender Equality and Development.
This course shows how an economics lens can be useful in understanding disparities in gender outcomes; how these disparities evolve over the development process; why closing gender gaps matters for development; and the roles of public policies and private action. Among the outcomes examined are human capital, access to economic opportunities, and agency or the ability to make choices and take actions. We will use the tools of economics think about how individuals and families make decisions, respond to opportunities generated by markets, and are affected by the parameters outlined by both formal and informal institutions and social norms.

ECON 0600. Gender in the Economy.
What determines the division of labor in a household? Why is the employment to population ratio for men lower today than it was in the 1950s? Why is it higher for women? What is the cause of the gender wage gap and how has it changed over time? These are some of the questions addressed in this course. We will cover economic theories, empirical research, and trends associated with: marriage, divorce, cohabitation, labor supply decisions, division of labor in the household, gender inequality, and fertility choices.

ECON 0710. Financial Accounting.
This comprehensive course covers the basics of accounting theory and practice. Students learn about the accounting procedures for various forms of business organizations, and the tools used to record, analyze, and communicate financial data within an organization. In addition, students learn how to interpret, decipher, and understand financial information and its role within the financial statements. Whether you're pursuing a career in accounting, finance, or any business-related field, this course equips you with the essential skills to navigate the complex world of financial reporting and analysis.

Fall	ECON0710	S01	14422	TTh	4:00-5:20(18)	(S. Byler)
Fall	ECON0710	S02	14950	TTh	6:40-8:00PM(18)	(S. Byler)
Spr	ECON0710	S01	24299	TTh	6:40-8:00PM(18)	(S. Byler)
Spr	ECON0710	S02	24300	TTh	4:00-5:20(16)	(M. Correia)

ECON 0720. Business Fundamentals Bootcamp.
Brown has partnered with Hult International Business School (https://www.hult.edu/lp/hult-brown-bootcamp/) for this program - renowned for its skill-focused approach to education and commitment to learning by doing. The Business Fundamentals Bootcamp enables you to learn and practice the fundamental skills needed for innovation within a business setting. Rapidly evolving labor markets in the Age of AI place a premium on your ability to articulate, analyze, assess, and execute on innovative ideas. You will learn new business concepts in the areas of Marketing & Branding, Financial Acumen, and New Product Planning. You will integrate these skills by applying them to a growth challenge for an international food company - Grupo Bimbo ($15B Revenues, Household Brands: Thomas' Muffins, SaraLee, Entenmmans). Throughout the course, you will test your business hypotheses and iterate your ideas. On a weekly basis you will turn concepts learned into practical skills, working in teams. The program culminates with a competitive pitch to company executives. Faculty will challenge and support you with practice opportunities -- individually and in collaborative teams. Your faculty for this immersive experience will be a combination of Brown faculty, Hult faculty, senior executives and practitioners, and coaches.

ECON 1000. Using Big Data to Solve Economic and Social Problems.
This course will show how "big data" can be used to understand and address some of the most important social and economic problems of our time. The course will give students an introduction to frontier research and policy applications in economics and social science 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, as well as those with more experience. Topics include equality of opportunity, education, racial disparities, effects of the COVID-19 pandemic, health care, climate change, criminal justice, and tax policy.

ECON 1050. Environmental Economics and Policy.
This course considers environmental issues through an economic lens. It is loosely arranged around four questions: why are markets so powerful? Why do markets frequently fail to deliver environmental goods? Can markets be har- nessed to deliver environmental goods? If so, why don't we do that? This course was previously listed as ENVS 1350 and ECON 1350; ECON 1350 had ECON 1110 as a prerequisite, and had problem sets and exams requiring calculus. The only prerequisite for this course is ECON 0110. By the end of the course, student will be able to articulate answers to all four questions, and use mathematical models to explore these issues further in depth.

Spr	ECON1050	S01	24301	MWF	12:00-12:50(01)	(A. Poterack)

ECON 1060. Living in a Warming World: The Economics of Climate Adaptation.
This course will explore the impact of the environment on our lives—on how much we earn, how long we live, where we reside, and more—and understand the ways in which households, firms, and governments adapt to the climate around them. Bringing insights from economic theory and empirical tools from quantitative social science, we will examine what data can show us about coping with the consequences of global warming. The course will cover issues both in the U.S. and around the world, with a particular focus on low- and middle- income countries.

Spr	ECON1060	S01	24655	TTh	2:30-3:50(11)	(D. Patel)

ECON 1070. Race, Crime, and Punishment in America.
This new course will use the perspectives of economics to examine the causes and consequences of high levels of incarceration in the United States, especially as it relates to the social disadvantage of African Americans. Quantitative analysis will be used sparingly. Students will be evaluated based on three short writing assignments. Issues examined include: racial disparities in punishment; the impact of crime on communities; policing and race relations in American cities; stereotypes and the economics of crime; the governing of prisons and the limits of punishment.

ECON 1090. Introduction to Game Theory.
This course offers an introduction to game theory, which studies strategic interactive decision-making. Upon successful completion of the course, students will: - Have experienced thinking like an economist (reasoning through models) - Recognize key strategic variables in interactive decision-making, and gain the ability to communicate them effectively to others -Understand the tension that exists between individual and collective incentives, and ways to mitigate it -Appreciate the role of information in strategic thinking -Better understand behavior in key applications covering business, economics, political science among others -Master central solution concepts in game theory, with a critical understanding of their meaning and limitations

Fall	ECON1090	S01	14423	MW	3:00-4:20(10)	(G. de Clippel)
Spr	ECON1090	S01	24302	MW	8:30-9:50(02)	(G. de Clippel)

ECON 1110. Intermediate Microeconomics.
Tools for use in microeconomic analysis, with some public policy applications. Theory of consumer demand, theories of the firm, market behavior, welfare economics, and general equilibrium.

Fall	ECON1110	S01	14774	MWF	12:00-12:50(15)	(I. Kwok)
Fall	ECON1110	S02	14775	TTh	10:30-11:50(03)	(T. Mekonnen)
Fall	ECON1110	S03	14776	TTh	2:30-3:50(03)	(T. Mekonnen)
Spr	ECON1110	S01	24303	TTh	9:00-10:20(05)	(P. Dal Bo)
Spr	ECON1110	S02	24304	TTh	1:00-2:20(08)	(P. Dal Bo)
Spr	ECON1110	S03	24305	MWF	9:00-9:50(02)	(Z. Murra Anton)

ECON 1130. Intermediate Microeconomics (Mathematical).
Microeconomic theory: Theories of the consumer and firm, competitive equilibrium, factor markets, imperfect competition, game theory, welfare economics, general equilibrium. May not be taken in addition to ECON 1110.

Fall	ECON1130	S01	14777	TTh	2:30-3:50(12)	(J. Fanning)
Spr	ECON1130	S02	24307	TTh	1:00-2:20(08)	(R. Vohra)

ECON 1170. Welfare Economics and Social Choice Theory.
Advanced microeconomic theory class for undergraduates. Building on the intermediate microeconomics course, the approach is more formal and mathematically more rigorous, presenting arguments and expecting students to carefully develop techniques in order to understand and produce logical proofs. Topics include the efficiency and coalitional stability properties of markets, as well as other mechanisms to allocate resources. Market failures are discussed, including advanced treatments of externalities, public goods, and asymmetric information. The second part of the course will discuss a number of topics in social choice theory, including different normative criteria of compensation, life and death choices, majority voting, Arrow's impossibility theorem.

Spr	ECON1170	S01	24308	TTh	4:00-5:20(16)	(R. Vohra)

ECON 1200. History of Economic Thought.
This course covers the history of modern (20th century) economics and economic thinking from the marginal revolution through the first half of the 20th century. The aim will be to develop an understanding of the origin and evolution of central concepts in economic theory, including subjective utility, marginal analysis, competitive markets, examine methodological disputes over positivism and formalism, and the development of general competitive equilibrium. We will consider the emergence of certain subfields in modern economics, and end with a discussion of the relevance of these ideas for economics in the 21st century.

Fall	ECON1200	S01	14778	T	4:00-6:30(07)	(E. Skarbek)

ECON 1205. The Economics of Populism and Polarization.
The recent rise of populism has been unprecedented in history. At the same time, the U.S. is described as increasingly polarized by mass media. What accounts for this? How do these two concepts relate to each other? This course will use tools from microeconomics and applied econometrics to study the origins and implications of populism and political polarization, exploring how economic, cultural, and political factors interact. Students will complete weekly readings, a presentation, a discussion, and a final paper. Classes will be as interactive as possible.

ECON 1210. Intermediate Macroeconomics.
This course offers a comprehensive overview of various topics in macroeconomics such as output, consumption, investment, unemployment, inflation, and economic growth. This course will develop theoretical models used to study the economy over different periods of time, from one or two years to several decades. Students will use theoretical models in combination with graphical and mathematical analysis to examine the impact of shocks and monetary and fiscal policies on the aggregate economy.

Fall	ECON1210	S01	14779	MWF	1:00-1:50(08)	(K. Forrester)
Fall	ECON1210	S02	14780	MWF	12:00-12:50(15)	(K. Forrester)
Fall	ECON1210	S04	14953	TTh	10:30-11:50(13)	(F. Valencia)
Spr	ECON1210	S01	24309	TTh	9:00-10:20(05)	(A. Handlan)
Spr	ECON1210	S02	24310	TTh	10:30-11:50(09)	(A. Handlan)
Spr	ECON1210	S03	24311	TTh	1:00-2:20(08)	'To Be Arranged'
Spr	ECON1210	S04	24392	TTh	2:30-3:50(11)	'To Be Arranged'

ECON 1225. Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies.
The course is concerned with macroeconomic policy in the US, with special focus on the recent economic crisis. The main objective of the course is to introduce students to the type of models and methods used in current research in macroeconomics both in the scholarly literature but also in the practice of central banks and major policy institutions. Events of the financial crisis and the economic recession of 2007-2009 will serve to illustrate the challenges confronted by macroeconomic analysis.

Spr	ECON1225	S01	24451	TTh	9:00-10:20(05)	(G. Eggertsson)

ECON 1255. Unemployment: Models and Policies.
This course will cover research topics related to unemployment, focusing on the models used to describe unemployment and the policies used to tackle unemployment. It will address the following questions: Why does unemployment exist? Why does unemployment vary across countries? Why does unemployment vary over time? What is the socially optimal level of unemployment? How should unemployment insurance, monetary policy, and fiscal policy respond to an increase in unemployment during a recession?

ECON 1300. Education, the Economy and School Reform (EDUC1600).
Interested students must register for EDUC 1150.

ECON 1301. Economics of Education I.
This course teaches students how to use microeconomics to analyze a broad array of education policy issues. The departure of this course from ECON 1110 is the emphasis on studying microeconomics in applied settings, and in particular, using microeonomic concepts to think about, analyze, and solve policy questions in education.

ECON 1305. Economics of Education: Research.
This course will cover academic research in the Economics of Education. Topics include production of student achievement, measuring student achievement, funding of public education, and school choice and school vouchers.

ECON 1310. Labor Economics.
This class covers theoretical and empirical analyses of wage and employment determination in the U.S. labor market and examines the impact of labor market institutions and government policy on worker outcomes. Topics include labor supply, labor demand, labor market equilibrium, minimum wages, monopsony power, labor exploitation, human capital, wage inequality, and labor market discrimination. Special attention is paid to issues that arise when attempting to draw credible inferences from non-experimental data and to the types of research designs that can address these issues.

Spr	ECON1310	S01	24312	TTh	10:30-11:50(09)	(K. Chay)

ECON 1315. Health, Education, and Social Policy.
The goal of the course is to help students to use economic theory and modern empirical methodology to think critically about the relative costs and benefits of health and education policies. By the end of the course students should feel comfortable critically evaluating proposals meant to increase human capital through school reforms, increased access to health care, or improved health environments.

ECON 1330. Gender and Development.
This course explores gender-specific challenges in development, examining how gender outcomes evolve with economic processes. Students will engage with theoretical frameworks and recent empirical research papers to understand the intersectionality of gender with important phenomenon studied in Development Economics. This course is ideal for students interested in applying insights and techniques from microeconomics and econometrics.

ECON 1340. Economics of Global Warming.
The problem of global warming can be usefully be described with the following simple economic model. We face a tradeoff between current consumption, future consumption, and future climate, have preferences over consumption and future climate and would like to choose our optimal climate/consumption bundle. This course is organized around filling in the details required to make this model useful, characterizing the optimal climate/consumption path suggested by the model, and finally, investigating policies to achieve the optimal path.

Spr	ECON1340	S01	24313	MW	8:30-9:50(02)	(M. Turner)

ECON 1345. Climate Change and the Commons.
This discussion-based seminar course aims to help students understand the different political challenges related to climate change. We will begin with an overview of the causes and consequences of climate change, emphasizing how the average effects conceal net winners and losers under the current status quo. Subsequently, we will step back to build a conceptual framework to understand the complexities underlying the Tragedy of the Commons, as well as the basics of market and non-market solutions. Finally, we will return to climate change to discuss the challenges of addressing it, both globally and within individual countries, that stem from the Tragedy of the Commons.

ECON 1350. Environmental Economics and Policy.
This course considers environmental issues through an economic lens. It is loosely arranged around four questions: why are markets so powerful? Why do markets frequently fail to deliver environmental goods? Can markets be harnessed to deliver environmental goods? If so, why don't we do that?

ECON 1355. Environmental Issues in Development Economics.
Examines environmental issues in developing countries, including air and water pollution, land use change, energy use, and the extraction of natural resources. Uses microeconomic models of households and firms, linking household/firm decision-making on environmental issues to choices in labor, land, and product markets. Develops basic empirical techniques through exercises and a project. For readings, relies exclusively on recent research to illustrate the roles of econometrics and economic theory in confronting problems at the nexus of the environment, poverty, and economic development.

Spr	ECON1355	S01	24314	M	3:00-5:30(13)	(A. Foster)

ECON 1360. Research Seminar in Health Economics.
The class covers healthcare in the U.S. from an economic perspective. A major theme throughout the semester is an attempt to understand why the U.S. has the lowest life expectancy among all wealthy nations while at the same time having by far the highest per-capita spending on healthcare. We also examine the impact of government policy and healthcare institutions on health outcomes in the U.S., with an emphasis placed on determining the credibility of empirical evidence. Consequently, we survey the issues that arise when attempting to draw causal inferences from non-experimental data and the types of research designs and econometric tools that can address potential sources of bias. More generally, the course emphasizes the development and application of critical thinking skills in the context of health economics, with classes often conducted in the style of a research seminar.

Fall	ECON1360	S01	14783	W	3:00-5:30(10)	(K. Chay)

ECON 1370. Race and Inequality in the United States.
We examine racial inequality in the United States, focusing on economic, political, social and historical aspects. Topics include urban poverty, employment discrimination, crime and the criminal justice system, affirmative action, immigration, and low wage labor markets. Black/white relations in the US are the principle but not exclusive concern.

ECON 1375. Inequality of Opportunity in the US.
This course examines empirical evidence on inequality of opportunity in the US. We cover recent work in economics that measures the importance of parents, schools, health care, neighborhoods, income, and race in determining children's long-term labor market success, and implications of these findings for US public policy. We will also place the empirical work in historical and philosophical context and cover a variety of statistical issues.

ECON 1385. Intergenerational Poverty in America.
In the US, the children of poor parents are eight times more likely to grow up to be poor than the children of high-income parents. What accounts for this? In this course we try to answer this question by examining how poverty influences child development and, ultimately, their income and wellbeing in adulthood. We will begin the course with an overview of poverty and intergenerational mobility in America, looking at historical trends and placing the US in international context. To understand why poverty is persistent across generations in the US, we begin with the economic model of skill formation in childhood. We then consider the existing research exploring how a number of factors explain the intergenerational persistence of poverty, including parental time, pollution, infant and child health, the justice system, neighborhoods, stress, and preschool/education systems. This course will involve reading and discussion of economic research and a final independent research project that will require data analysis and the application of empirical methods students have learned in econ 1629/1630.

Fall	ECON1385	S01	14784	TTh	10:30-11:50(13)	(A. Aizer)

ECON 1390. Inequality of Income, Wealth, and Health in the United States.
Inequality of income, wealth, and health, with a focus on the United States. Topics include measurement of inequality, mobility, and poverty; the mapping from individual characteristics to income and wealth; transmission of economic status between generations; the division of national income between capital and labor; factors causing the rise in inequality in the United States since 1980, including technological change and globalization; differential trends in life expectancy, morbidity, and health behaviors among income groups; government policies that impact inequality, including progressive taxation, the minimum wage, support of unionization, public education, and immigration policy; and the political economy of redistributive policies.

Spr	ECON1390	S01	24315	MWF	2:00-2:50(07)	(D. Weil)

ECON 1400. The Economics of Mass Media.
The mass media shape our culture and politics but are also shaped by their economic incentives. In this course we will use tools from microeconomics and econometrics to study the effects of mass media on economic, social and political behavior, and to study the factors that shape media content and availability. We will develop implications for business and public policy. Students will complete weekly readings, bi-weekly assignments, a take-home midterm, and a final paper and presentation. Class time will be devoted to a mix of lecture and discussion of readings and lecture topics.

ECON 1410. Urban Economics.
The first part of the course covers the set of conceptual and mathematical models widely used to understand economic activity both between and within cities. The second part of the course examines various urban policy issues including urban transportation, housing, urban poverty, segregation and crime. The course makes extensive use of empirical evidence taken primarily from the United States.

Fall	ECON1410	S01	14785	MW	8:30-9:50(09)	(M. Turner)

ECON 1420. Industrial Organization.
A study of industry structure and firm conduct and its economic/antitrust implications. Theoretical and empirical examinations of strategic firm interactions in oligopolistic markets, dominant firm behaviors, and entry deterrence by incumbents. Economics of innovation: research and development activities and government patent policies. Network effects, and why market share critical mass matters for firm survival in certain markets.

Fall	ECON1420	S01	14786	MWF	10:00-10:50(14)	(I. Kwok)
Spr	ECON1420	S01	24316	MWF	12:00-12:50(01)	(I. Kwok)

ECON 1430. The Economics of Social Policy.
This course will cover research topics in the economics of social policy. The course will focus on understanding the context for key social policies in health, education, social welfare and other areas as well as understanding the methods that economists use to generate causal impacts of these policies.

ECON 1440. The Economic Analysis of Political Behavior.
Slow economic growth, controversial policy, and over a decade of continuous war have led many to question the extent to which government is a force for the common good. Blame is often assigned to specific politicians or ideological perspectives. Public choice economics instead analyzes the incentive structure within which political decisions take place, seeking to uncover the forces guiding the behavior of voters, legislators, judges, and other political agents. This course will examine the insights and limitations of the public choice perspective in the context of electoral politics, legislation, bureaucracy and regulation, and constitutional rules.

Spr	ECON1440	S01	24395	MWF	11:00-11:50(04)	(E. Skarbek)

ECON 1450. Economic Organizations and Economic Systems.
Positive and normative study of the organizations that comprise and the institutional structures that characterize a modern mixed market economy. Theoretical efficiency and potential limitations of private enterprises and markets including (a) why some market actors are organizations (e.g., companies), (b) effort elicitation problems in organizations, (c) the problem of cooperation in traditional versus behavioral economics, and (d) alternative kinds of organization (including proprietorships, corporations, nonprofits, government agencies). Roles of government, and problems of government failure, including the collective action problem of democracy. State-market balance and contemporary controversies over the economic system in light of the 2008 financial crisis.

ECON 1460. Industrial Organization (Mathematical).
A more mathematical treatment of industry structure, firm conduct, and economic/antitrust implications. Theoretical and empirical examinations of strategic firm interactions in oligopolistic markets, dominant firm behaviors, and entry deterrence by incumbents. Economics of innovation: research and development activities and government patent policies. This course uses mathematical methods from intermediate microeconomics, including game theory, and from econometrics, including regression analysis.

ECON 1465. Antitrust and Competition.
Antitrust law shapes competition through public policy based on economics and economic incentives. In this course we will use tools from microeconomics, econometrics, and industrial organization to learn about Antitrust policy and regulation of competition in the marketplace. We will learn about antitrust through the context of economics and Antitrust cases over the past century. Students will complete weekly readings, and a final paper. Class time will be devoted to a mix of lecture and discussion of readings and lecture topics.

ECON 1470. Bargaining Theory and Applications.
Bargaining theory is emerging as an important area within the general rubric of game theory. Emphasis is on providing a relatively elementary version of the theory in order to make it accessible to a large number of students. Covers introductory concepts in game theory, strategic and axiomatic theories of bargaining and their connections, applications to competitive markets, strikes, etc.

Fall	ECON1470	S01	14787	TTh	9:00-10:20(05)	(J. Fanning)

ECON 1480. Public Economics.
What is the appropriate role for government in a market economy? How can public policy help or hinder economic outcomes? How do governments choose what policies to pursue? These are the sorts of questions addressed in Public Economics, which uses the tools of economic theory to analyze a wide range of topics, including taxation, public goods, healthcare policy, zoning, voting behavior, and more.

Fall	ECON1480	S01	14788	MWF	1:00-1:50(08)	(A. Poterack)
Spr	ECON1480	S01	24317	MWF	1:00-1:50(06)	(E. Skarbek)

ECON 1487. Translating Evidence into Economic Policy.
The objective of this course is, precisely, to offer those insights to students interested in a career in policymaking by providing case studies of the most important and challenging policy questions of our lifetimes. By the end of the course students will have deepened their understanding of the most important policy challenges from an array of different contexts and the evidence around them, with a special focus on quantitative methods useful to analyze those questions. This class is particularly designed for students that have already studied some of the basic econometric methods, but feel they could get a better understanding of them when looking at them in the context of actual, real-life, policy challenges.

ECON 1490. Theory of Market Design.
How can we use economic theory to better design economic markets? This course studies various theoretical models that help understand important design features in many real-world markets. Topics include market entry, pricing, search, auctions, matching, reputation, and peer-to-peer platform design. We will develop theoretical “case studies” of several real-world markets (egs. eBay, Airbnb, Google advertising, Uber, Tinder, TaskRabbit). Prerequisites: ECON 1110 or ECON 1130. While ECON 1870 is not a prerequisite, you may benefit from familiarity with this course material.

Fall	ECON1490	S01	14789	TTh	1:00-2:20(06)	(B. Pakzad-Hurson)
Spr	ECON1490	S01	24318	TTh	10:30-11:50(09)	(B. Pakzad-Hurson)

ECON 1500. Current Global Macroeconomic Challenges.
We will study some of the most important macroeconomic challenges that the world faces today including secular stagnation, inequality, COVID-19, climate change, fiscal sustainability. This course aspires to make you a better economist and a better citizen of the world. We will talk about the `big stuff` that really matters, the economic forces that shape the lives of billions of people – including your own. By the end of the course, you will feel more comfortable evaluating economic policy aimed at tackling complex real-world economic issues that are riddled with tradeoffs and uncertainty.

ECON 1510. Economic Development.
This course is an introduction to development economics and related policy questions. It discusses the measurement of poverty and inequality; growth; population change; health and education; resource allocation and gender; land and agriculture; and credit, insurance, and savings. The course provides a theoretical framework for the economic analysis of specific problems associated with developing economies, and introduces empirical methods used to evaluate policies aimed at solving these problems. By the end of the class, students will be able to discuss some of the “hot topics” in development, like microfinance, family planning, or the problem of “missing women” in South-East Asia.

ECON 1511. Research in Development Economics I.
This course is part of a two-part sequence on research in development economics. The goal of this sequence is to build expertise in the economic field of development economics through the application of theoretical and empirical microeconomic analysis. Topics that are covered in the two courses include fertility, marriage, education, health, infrastructure, agriculture and natural resources consumption, health, firms, labor and credit markets, and social preferences. The courses explore the use of randomized control trials, survey and administrative data, and experimental methods.

Fall	ECON1511	S01	15136	TTh	9:00-10:20(05)	(B. Steinberg)

ECON 1512. Research in Development Economics II.
This course is part of a two-part sequence on research in development economics. The goal of this sequence is to build expertise in the economic field of development economics through the application of theoretical and empirical microeconomic analysis. Topics that are covered in the two courses include fertility, marriage, education, health, infrastructure, agriculture and natural resources consumption, health, firms, labor and credit markets, and social preferences. The courses explore the use of randomized control trials, survey and administrative data, and experimental methods.

Spr	ECON1512	S01	24570	W	3:00-5:30(10)	(E. Macchi)

ECON 1520. Culture, History and Comparative Development.
Why are some societies rich and others poor? While typical answers emphasize proximate causes like factor accumulation, technological progress, and demographic change, weighing the shadow of history on contemporary economic performance occupies an increasing part of the agenda among growth and development economists. This course will critically survey the recent empirical literature highlighting the role of historical events and geographic endowments in shaping social, political, and cultural factors and the process of development.

Fall	ECON1520	S01	14790	MW	3:00-4:20(10)	(S. Michalopoulos)

ECON 1530. Health, Hunger and the Household in Developing Countries.
Microeconomic analysis of household behavior in low income societies emphasizing the economic determinants of health and nutrition and the evaluation of policy. The relationship among health, nutrition, fertility, savings, schooling, labor productivity, wage determination, and gender-based inequality. Emphasizes theoretically-based empirical research.

Fall	ECON1530	S01	14791	M	3:00-5:30(03)	(A. Foster)

ECON 1540. International Trade.
Theory of comparative advantage, trade, and income distribution. Welfare analysis of trade: gains from trade, evaluation of the effects of trade policy instruments-tariffs, quotas, and subsidies. Trade under imperfect competition. Strategic trade policy. Trade, labor markets, preferential trade agreements, and the world trading systems.

Spr	ECON1540	S01	24394	MWF	11:00-11:50(04)	(A. Poterack)

ECON 1545. Topics in Macroeconomics, Development and International Economics.
This class is a senior seminar that covers selected topics at the intersection of macroeconomics, economic development and international trade. The leading theme of the class is the determinants of the observed cross-country differences in income per capita and growth rates. We will consider a wide range of theories to explain such disparities in economic outcomes, with a special focus on theories that stress problems in financial markets. We will also study the role of wealth inequality. We may also cover structural change, the link between volatility, diversification and development, and selected topics in international trade.

ECON 1550. International Finance.
An introduction to open-economy macroeconomics and international finance. How international trade in goods and services and cross-border capital flows shape macroeconomic and financial outcomes. Topics include inflation, output, employment, interest rates, exchange rates, and asset prices; the current account and balance of payments; nominal and real exchange rates; the international monetary system; fixed and flexible exchange rate regimes; monetary and fiscal policy in open economies; the international monetary system; the gold standard and Bretton Woods system; tradeoffs among internal, external, social, and environmental balance.

Spr	ECON1550	S01	24319	MWF	2:00-2:50(07)	'To Be Arranged'

ECON 1555. Immigration and Integration in the West.
Immigration is one of the most contested issues in US and European politics, and economists have developed a large empirical literature that often reaches conflicting conclusions. This course examines the economic, social, and political integration of immigrants in the United States and Europe, combining a conceptual and historical overview with a focus on core empirical debates. Topics include labor market and fiscal effects, discrimination, political participation, social cohesion, and immigration backlash, including its relationship to right-wing voting. Students engage with foundational work (e.g., the Mariel boatlift debate) and recent research, learning to evaluate causal claims using natural experiments, difference-in-differences, audit studies, and historical designs. The course also examines the role of citizenship policies and diaspora ties in shaping integration outcomes, equipping students to critically assess empirical findings and their relevance for policy debates.

Fall	ECON1555	S01	16171	T	4:00-6:30(07)	(D. Kamel)

ECON 1560. Economic Growth.
A theoretical and empirical examination of economic growth and income differences among countries. Focuses on both the historical experience of countries that are currently rich and the process of catch-up among poor countries. Topics include population growth, accumulation of physical and human capital, technological change, natural resources, income distribution, geography, government, and culture.

Spr	ECON1560	S01	24320	TTh	2:30-3:50(11)	(D. Weil)

ECON 1565. Income Inequality.
This course examines the macroeconomic dimensions of income inequality. How much of national income is paid to capital and how much to labor? What determines the gap in wages between workers with different skill levels, as well as variation in wages within skill groups? How have changes in technology, openness to trade, government policy, and the quantities of factors of production contributed to changes in these relative returns? What determines the aggregate quantities of different factors of production as well as their distribution among individuals? How does inequality feed back to affect macroeconomic stability and long term growth?

ECON 1570. The Economics of Latin Americans.
This course introduces students to the economic study of Latin Americans (both in the US and abroad). Topics include the determinants of economic development, institutions and growth, imperialism, conflict, immigration and discrimination.

ECON 1590. The Economy of China since 1949.
This course examines the organization, structure, and performance of the economy of China. Emphasis is placed on the changing economic system including the roles of planning and markets and government economic strategy and policies. The pre-reform period (1949-78) receives attention especially as it influences developments in the market-oriented reform period since 1978. Topics include rural and urban development, industrialization and structural change, rural-urban migration, income inequality and growth, the role of international trade and investment. Both analytical and descriptive methods are used.

ECON 1600. Education, the Economy and School Reform.
This seminar examines the linkages between educational achievement and economic outcomes for individuals and nations. We study a range of system, organizational, and personnel reforms in education by reviewing the empirical evidence and debating which reforms hold promise for improving public education and closing persistent achievement gaps. Understanding and critiquing the experimental, quasi-experimental and descriptive research methods used in the empirical literature will play a central role in the course.

ECON 1620. Introduction to Econometrics.
This course introduces the statistical methods used to analyze economic data. Economists often need to test the validity of competing theories and to analyze government and business policies. Econometrics provide them with the necessary tools. The course starts with an exposition of essential probability concepts. Then, students will be introduced to statistical inference, estimation and hypothesis testing. The third part of the course will be devoted to regression analysis. Theory is illustrated with examples, and emphasis will be placed on the connection between the theory and application. This practice will be reinforced by computer lectures using Stata, a computer software commonly used by economists for data analysis. This course is a prerequisite for many applied economics courses at Brown and for higher level econometrics.

Fall	ECON1620	S01	14792	TTh	2:30-3:50(11)	(S. Kwon)
Fall	ECON1620	S02	14793	TTh	9:00-10:20(11)	(S. Kwon)
Fall	ECON1620	L01	15259	T	12:00-12:50	(S. Kwon)
Fall	ECON1620	L02	15260	T	12:00-12:50	(S. Kwon)
Fall	ECON1620	L03	15261	W	7:00-7:50	(S. Kwon)
Fall	ECON1620	L04	15262	Th	12:00-12:50	(S. Kwon)
Fall	ECON1620	L05	15263	Th	12:00-12:50	(S. Kwon)
Fall	ECON1620	L06	15264	Th	7:00-7:59	(S. Kwon)
Spr	ECON1620	S01	24321	TTh	9:00-10:20(05)	(B. Knight)
Spr	ECON1620	L01	24465	T	8:00-8:50	(B. Knight)
Spr	ECON1620	L02	24466	T	12:00-12:50	(B. Knight)
Spr	ECON1620	L03	24467	T	7:00-7:50	(B. Knight)
Spr	ECON1620	L04	24563	W	6:00-6:50	(B. Knight)
Spr	ECON1620	L05	24564	W	7:00-7:50	(B. Knight)
Spr	ECON1620	L06	24565	Th	12:00-12:50	(B. Knight)

ECON 1629. Applied Research Methods for Economists.
This class will cover the basics of applied research in economics. We will cover how we use economic theory to formulate a hypothesis to test and how we use data to test our hypothesis. As part of the coursework, students will be exposed to topics across multiple fields of applied economic research (eg, health, labor, political economy, urban economics, development, etc.) that can be explored in greater detail in more advanced classes. Students will read and discuss papers published in professional journals and perform data analysis.

Fall	ECON1629	S01	14794	TTh	9:00-10:20(05)	(M. Pecenco)
Fall	ECON1629	S02	14795	TTh	10:30-11:50(13)	(M. Pecenco)
Fall	ECON1629	S03	14796	TTh	1:00-2:20(06)	(A. Aizer)
Fall	ECON1629	L01	15105	M	6:00-6:59	(M. Pecenco)
Fall	ECON1629	L02	15106	M	7:00-7:50	(M. Pecenco)
Fall	ECON1629	L03	15107	T	12:00-12:50	(M. Pecenco)
Fall	ECON1629	L04	15108	T	7:00-7:50	(M. Pecenco)
Fall	ECON1629	L05	15109	M	6:00-6:50	(M. Pecenco)
Fall	ECON1629	L06	15110	M	7:00-7:50	(M. Pecenco)
Fall	ECON1629	L07	15111	T	12:00-12:50	(M. Pecenco)
Fall	ECON1629	L08	15112	T	7:00-7:50	(M. Pecenco)
Fall	ECON1629	L09	15113	M	6:00-6:50	(A. Aizer)
Fall	ECON1629	L10	15114	M	7:00-7:50	(A. Aizer)
Fall	ECON1629	L11	15115	T	12:00-12:50	(A. Aizer)
Fall	ECON1629	L12	15116	T	7:00-7:50	(A. Aizer)
Spr	ECON1629	S01	24322	MWF	10:00-10:50(03)	(I. Kwok)
Spr	ECON1629	S02	24323	MW	8:30-9:50(02)	(L. Lagos)
Spr	ECON1629	S03	24324	MW	3:00-4:20(10)	(L. Lagos)
Spr	ECON1629	L01	24453	M	6:00-6:50	(I. Kwok)
Spr	ECON1629	L02	24454	M	7:00-7:50	(I. Kwok)
Spr	ECON1629	L03	24455	T	12:00-12:50	(I. Kwok)
Spr	ECON1629	L04	24456	T	7:00-7:50	(I. Kwok)
Spr	ECON1629	L05	24457	M	6:00-6:50	(L. Lagos)
Spr	ECON1629	L06	24458	M	7:00-7:50	(L. Lagos)
Spr	ECON1629	L07	24459	T	12:00-12:50	(L. Lagos)
Spr	ECON1629	L08	24460	T	7:00-7:50	(L. Lagos)
Spr	ECON1629	L09	24461	M	6:00-6:50	(L. Lagos)
Spr	ECON1629	L10	24462	M	7:00-7:50	(L. Lagos)
Spr	ECON1629	L11	24463	T	12:00-12:50	(L. Lagos)
Spr	ECON1629	L12	24464	T	7:00-7:50	(L. Lagos)

ECON 1630. Mathematical Econometrics I.
Advanced introduction to econometrics with applications in finance and economics. How to formulate and test economic questions of interest. The multivariate linear regression model is treated in detail, including tests of the model's underlying assumptions. Other topics include: asymptotic analysis, instrumental variable estimation, and likelihood analysis. Convergence concepts and matrix algebra are used extensively.

Fall	ECON1630	S01	14797	MW	3:00-4:20(04)	(J. Roth)
Fall	ECON1630	S02	14798	MW	8:30-9:50(04)	(J. Roth)
Spr	ECON1630	S01	24325	TTh	1:00-2:20(08)	(P. Hull)
Spr	ECON1630	S02	24326	MW	3:00-4:20(10)	(T. Kitagawa)

ECON 1640. Mathematical Econometrics II.
Continuation of ECON 1630 with an emphasis on econometric modeling and applications. Includes applied topics from labor, finance, and macroeconomics.

ECON 1650. Financial Econometrics.
Financial time series, for example, asset returns, options and interest rates, possess a number of stylized features that are analyzed using a specific set of econometric models. This course deals with an introduction to such models. It discusses time series models for analyzing asset returns and interest rates, (GARCH) models to explain volatility, models to explain extreme events which are used for the Value at Risk and models for options prices.

ECON 1660. Big Data.
The spread of information technology has lead to the generation of vast amounts of data on human behavior. This course explores ways to use this data to better understand the societies in which we live. The course weaves together methods from machine learning (OLS, LASSO, trees) and economics (reduced form causal inference, economic theory, structural modeling) to answer real world questions in a sequence of projects. We will use these projects as a backdrop to weigh the importance of causality, precision, and computational efficiency. Knowledge of basic econometrics and programming is assumed.

ECON 1670. Advanced Topics in Econometrics.
This class will present advanced topics in Econometrics. The focus will be on cross-sectional methods; the class will start with some basic results needed for any advanced econometrics work, before giving an introduction to asymptotic and identification techniques and concepts, with some applications.

Spr	ECON1670	S01	24327	TTh	2:30-3:50(11)	(A. Norets)

ECON 1680. Machine Learning, Text Analysis, and Economics.
Economists need advanced methods to study data that is complex, high-dimensional, and unstructured. The goal of this course is to highlight the key challenges of working with such data in economics and what machine learning and text analysis methods can be used to address them. Private sector companies, government agencies, and economics graduate programs are all looking for individuals with an understanding of these advanced methods and experience in applying them to real-world problems. This course is designed to help to meet that demand. This course will meet once a week. Lectures will introduce students to new material and include discussions of current economics research using machine learning and text analysis methods. They will also include applied exercises demonstrating methods covered in class and will focus on developing writing assignments and providing peer feedback.

ECON 1690. Latin American Economic History.
Latin America and the Caribbean is one of the culturally richest and most diverse regions of the world. It also possesses a long history, dating back to pre-Columbian indigenous tribes, including the multifaceted trauma of colonization and more than two hundred years of independent republics. In this course we will explore this rich legacy, to uncover the deep roots of regional underdevelopment and inequality today.We will explore and scrutinize some of the canonical explanations for why is the region still poor and unequal. We will cover key topics such as the role of natural endowments, colonial institutions, slavery, education, religion and elites, among others. We will also study the role of politics in economics in a region that has experienced everything from dictatorships, guerrilla movements and crime.

Fall	ECON1690	S01	15691	M	3:00-5:30(03)	(F. Valencia)

ECON 1710. Investments I.
The function and operation of asset markets; the determinants of the prices of stocks, bonds, options, and futures; the relations between risk, return, and investment management; the capital asset pricing model, normative portfolio management, and market efficiency.

Fall	ECON1710	S01	14800	MWF	11:00-11:50(16)	(I. Kwok)
Fall	ECON1710	S02	14801	MWF	2:00-2:50(01)	(B. Gibbs)
Spr	ECON1710	S01	24328	MWF	11:00-11:50(04)	(S. Kuo)
Spr	ECON1710	S02	24329	MWF	1:00-1:50(06)	(S. Kuo)

ECON 1720. Corporate Finance.
A study of theories of decision-making within corporations, with empirical evidence as background. Topics include capital budgeting, risk, securities issuance, capital structure, dividend policy, compensation policy, mergers and acquisitions, leveraged buyouts and corporate restructuring.

Fall	ECON1720	S01	14802	MWF	11:00-11:50(16)	(B. Gibbs)
Spr	ECON1720	S01	24330	MWF	12:00-12:50(01)	(B. Gibbs)

ECON 1730. Venture Capital, Private Equity, and Entrepreneurship.
This course offers an in-depth exploration of how venture capital and private equity investors source and evaluate investment opportunities, structure deals, assist companies in creating value, and execute successful exits. Through lectures and case studies, we'll also cover topics such as fund structures, valuation methods, and incentive design.

ECON 1740. Mathematical Finance.
Introduction to financial derivatives like forwards, futures, swaps and options and the probabilistic techniques used to analyze them. Topics include replication, no-arbitrage and risk-neutrality, binomial asset pricing model and black-scholes model.

Spr	ECON1740	S01	24396	MWF	1:00-1:50(06)	(Y. Lin)

ECON 1750. Investments II.
Individual securities: forwards, futures, options and basic derivatives, pricing conditions. Financial markets: main empirical features, equity premium and risk-free rate puzzles, consumption based asset pricing models, stock market participation, international diversification, and topics in behavioral finance.

Fall	ECON1750	S01	14803	TTh	1:00-2:20(06)	(S. Kwon)

ECON 1760. Financial Institutions.
This course analyzes the role of financial institutions in allocating resources, managing risk, and exerting corporate governance over firms. After studying interest rate determination, the risk and term structure of interest rates, derivatives, and the role of central banks, it takes an international perspective in examining the emergence, operation, and regulation of financial institutions, especially banks.

Spr	ECON1760	S01	24331	MWF	9:00-9:50(02)	(B. Gibbs)

ECON 1770. Crisis Economics.
This course analyzes the economics of financial crises, starting from the preceding run-up and credit market froth, to how crises are initially triggered, amplified, and propagated to the broader macroeconomy. We will devote considerable time to the workings of the financial system, especially financial intermediation and the role of the central bank. The course aims to ground this in economic theory and empirical analyses: as such, many of the readings will be recent journal articles and working papers. By the end of this course, students will be familiar with the systematic forces that drive financial fragility, and the tradeoffs that policy makers face before, during, and after the crises. They will be able to apply the framework to analyze real world scenarios and current events.

Spr	ECON1770	S01	24332	TTh	10:30-11:50(09)	(S. Kwon)

ECON 1780. Advanced Topics in Corporate Finance.
This advanced, case-based seminar is focused on delving deeply into several key pillars of corporate finance: valuation, financing, cash management, and, importantly, business ethics. We will build upon concepts presented in earlier finance courses, in particular, ECON 1710 and ECON 1720, and will use MBA-level cases to explore in much greater detail several concepts introduced in these classes. This course is rigorous - we will be analyzing at least one case each week and qualitative and quantitative case write-ups will be required throughout the semester, as well as a comprehensive final project. We will have guest speakers throughout the semester.

ECON 1805. Experimental and Behavioral Economics.
There is a rich literature on experimental economics, which sheds light on whether the predictions of economic theory materialize in controlled, laboratory settings. We will start by studying the methodology of experimental economics, and then delve into a range of classic and more recent topics that have been taken to the laboratory. A large focus of the class will be applications of experimental methods to behavioral economics

Spr	ECON1805	S01	24333	TTh	2:30-3:50(11)	(K. Rozen)

ECON 1820. Theory of Behavioral Economics.
This course provides a formal introduction to behavioral economics, focusing mostly on individual decision making. For different choice domains, we start by analyzing the behavior implied by benchmark models used by economists (e.g. rational choice, expected utility, exponential discounting). Experimental and empirical evidence is then used to highlight some limitations of these models, and to motivate new models that have been introduced to account for these violations. We will cover, for instance, models of limited attention, non-expected utility, and hyperbolic discounting.

Fall	ECON1820	S01	14804	MW	8:30-9:50(09)	(G. de Clippel)

ECON 1825. Behavioral Economics and Public Policy.
This course explores ways that psychological research indicating systematic departures from classical economic assumptions can be translated into formal models that can be incorporated into economics. The course will emphasize careful interpretation and production of new evidence on relevant departures, formalizing this evidence into models that can generate sharp predictions using traditional economic approaches, and exploring implications of those models for public policy.

ECON 1830. Behavioral Finance.
Over the past several decades, the field of finance has developed a successful paradigm based on the notions that investors and managers are generally rational and that the prices of securities are generally "efficient." In recent years, however, theoretical and empirical research has shown this paradigm to be insufficient in describing the various features of actual financial markets. In this course we will examine how the insights of behavioral finance complement the traditional paradigm and shed light on the behavior of asset prices, corporate finance, financial crises, and other phenomena.

ECON 1850. Theory of Economic Growth.
This course explores the origins of wealth and inequality across the globe. It examines: (i) the determinants of the growth process since the emergence of Homo sapiens, (ii) the roots of the dramatic transformation in living standards in the past two centuries, and (iii) the role of deeply rooted geographical, institutional, and cultural characteristics as well as human diversity in the uneven development across the countries and regions. The analysis proposes a resolution for some of the most fundamental mysteries of the journey of humanity: What trapped humankind in poverty for most of human existence? What sparked the massive metamorphosis in living standards over the past two centuries? And what led to the emergence of immense inequality across nations?

Spr	ECON1850	S01	24334	TTh	4:00-5:20(16)	(O. Galor)

ECON 1860. The Theory of General Equilibrium.
Existence and efficiency of equilibria for a competitive economy; comparative statistics; time and uncertainty.

ECON 1870. Game Theory and Applications to Economics.
Study of the elements of the theory of games. Non-cooperative games. Repeated games. Cooperative games. Applications include bargaining and oligopoly theory.

Fall	ECON1870	S01	14805	W	3:00-5:30(10)	(R. Serrano)

ECON 1960. Honors Tutorial for Economics Majors.
Students intending to write an honors thesis in economics must register for this class. The goal is to help students with the process of developing and writing their thesis. Particular focus will be on data analysis, identifying appropriate literature and testing hypotheses. Each student must find a thesis advisor with interests related to their topic. Students will plan to enroll in this course in both semesters.

Note this course does not count toward Economics concentration credit.

Fall	ECON1960	S01	14806	Arranged		(N. Thakral)
Spr	ECON1960	S01	24335	Arranged		(N. Thakral)

ECON 1970. Independent Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ECON 2010. Mathematics for Economists.
Techniques of mathematical analysis useful in economic theory and econometrics. Linear algebra, constrained maximization, difference and differential equations, calculus of variations.

Fall	ECON2010	S01	14113	TTh	1:00-2:20(06)	(A. Norets)

ECON 2020. Applied Economics Analysis.
This course prepares students to conduct independent research by providing the necessary skills in programming and project organization. Topics covered will include version control, integrated development environments (IDEs), programming basics, package environments, functional programming, data visualization, data science, and more. Material will be presented using the programming language R, with some time spent on introductions to Python, Julia, and some basics of HTML. By the end of the course students should feel comfortable in the major programming languages used in economic research and in producing their own work as a replicable, sustainable project.

Spr	ECON2020	S01	23876	MW	10:30-11:50	'To Be Arranged'

ECON 2030. Introduction to Econometrics I.
The probabilistic and statistical basis of inference in econometrics.

Fall	ECON2030	S01	14114	MW	1:30-2:50(08)	(T. Kitagawa)

ECON 2040. Econometric Methods.
Applications of mathematical statistics in economics. The nature of economic observations, cross-section and time series analysis, the analysis of variance and regression analysis, problems of estimation.

Spr	ECON2040	S01	23877	MW	1:30-2:50	(S. Kwon)

ECON 2050. Microeconomics I.
Decision theory: consumer's and producer's theory; general competitive equilibrium and welfare economics: the Arrow-Debreu-McKenzie model; social choice and implementation.

Fall	ECON2050	S01	14115	MW	10:30-11:50(16)	(R. Serrano)

ECON 2060. Microeconomics II.
Economics of imperfect information: expected utility, risk and risk aversion, optimization under uncertainty, moral hazard, and self-selection problems. Economics of imperfect competition: monopoly; price discrimination; monopolistic competition; market structure in single shot, repeated and stage games; and vertical differentiation.

Spr	ECON2060	S01	23878	TTh	10:30-11:50(09)	(T. Mekonnen)

ECON 2070. Macroeconomics I.
Consumption and saving, under both certainty and uncertainty; theory of economic growth; real business cycles; investment; and asset pricing.

Fall	ECON2070	S01	14116	TTh	10:30-11:50(13)	(O. Galor)

ECON 2080. Macroeconomics II.
Money, inflation, economic fluctuations and nominal rigidities, monetary and fiscal policy, investment, unemployment, and search and coordination failure.

Spr	ECON2080	S01	23879	TTh	1:00-2:20(08)	(G. Eggertsson)

ECON 2090. Topics in Microeconomics: Decision Theory and Evidence.
Decision theory is the use of axiomatic techniques to understand the observable implications of models of choice. It is central to the incorporation of psychological insights into economics, and provides a vital link between theory and experimental economics. This course covers standard economic models of choice in different domains - choice under risk, choice under uncertainty and intertemporal choice. It looks at key topics from behavioral economics: choice with incomplete information, reference dependent preferences, temptation and self control, the Allais paradox, ambiguity aversion and neuroeconomics. In each case it relates the predictions of theory to experimental data on behavior.

ECON 2130. Topics in Monetary Economics.
Business cycle analysis with an emphasis on heterogeneous-agent economics and the interaction between business cycles and economic growth.

ECON 2140. Economic Modeling for Applied Economists.
The purpose of this course is to develop formal tools for building formal, theoretical economic models to support empirical research. This class is aimed at graduate students conducting applied research who have begun conducting independent research. The class will first introduce and review important topics from game theory used in constructing models, but with an applied focus, taking into account common data restrictions and limitations. Emphasis will be placed on tools which can be used to complement existing research goals. Students will be expected to participate in class discussions, weekly assignments, and presentations/ reviews of existing papers. Class time will be split between lectures and group discussions/presentations. The main deliverable for the course is to add a formal modeling section to an existing/ongoing independent research project.

Spr	ECON2140	S01	23880	T	4:00-6:30(16)	(B. Pakzad-Hurson)

ECON 2150. Market Design.
This is a theoretical course in market design, specifically studying the theory and applications of matching. It is designed for students interested in market and mechanism design, and may also be of interest to students interested in utilizing applied theory in their research. The course will begin with an overview of matching markets, but will quickly move to recent advances and open research topics.

ECON 2160. Risk, Uncertainty, and Information.
Advanced topics in the theories of risk, uncertainty and information, including the following: Decision making under uncertainty: expected and non-expected utility, measures of risk aversion, stochastic dominance. Models with a small number of agents: optimal risk-sharing, the principal-agent paradigm, contracts. Models with a large number of agents: asymmetric information in centralized and decentralized markets. Implementation theory.

ECON 2170. Applied Economic Theory.
In this course we will survey some classic theoretical papers published post-1980, drawn from a variety of fields in economics. Our emphasis will be on mastering modeling techniques in these papers, with an eye toward applying those techniques to new problems. The papers fall within the broad areas of industrial organization, information economics and the theory of incentives.

ECON 2180. Game Theory.
Non-cooperative games, dominance, Nash equilibrium, refinements. Cooperative games, core, bargaining set, equilibrium in normal form games. Implementation. Repeated games.

ECON 2190A. Cooperative Game Theory.
No description available.

ECON 2190B. General Equilibrium Theory.
No description available.

ECON 2190C. Topics in Economic Theory.
This edition of the theory topics course will consist of the presentation of recent papers in different areas of economic theory, including axiomatic treatments of risk and information, modern consumer and revealed-preference theories with connections with bounded rationality, implementation theory and mechanism design, and information and institution design. The course will be targeted to second- and third-year graduate students, with the goal of initiating their own research. The active participation of students will be required.

ECON 2190D. Topics on Game Theory.
First, we will discuss the several elements that characterize a two-sided matching market and the concept of setwise-stability versus core. Then,we will model several of these markets (one-to-one, many-to-one and many-to-many, in the discrete and continuous cases) under the game-theoretic approach and will define for all of them the stability concept, establishing its relationship with the core and the competitive equilibrium concepts. Afterwards, we will introduce the theory of stable matching model by focusing on both the cooperative and non-cooperative aspects of the one-to-one matching markets.

ECON 2190E. Topics in Economics: Economics and Psychology.
This course is about the challenges that economic theorists face in their quest for economic models in which decision makers have a "richer psychology" than prescribed by textbook models. The enrichment takes two forms: (i) broadening the set of considerations that affect decision makers' behavior beyond simple, material self-interest; (ii) relaxing the standard assumption that agents have unlimited ability to perceive and analyze economic environments, and that they reason about uncertainty as "Bayesian statisticians". Special emphasis will be put on the implications of "psychologically richer" models on market behavior.

ECON 2210. Political Economy I.
An introduction to political economy, focusing especially on the political economy of institutions and development. Its purpose is to give a good command of the basic tools of the area and to introduce at least some of the frontier research topics. The readings will be approximately evenly divided between theoretical and empirical approaches.

ECON 2260. Political Economy I.
This first course in political economy provides theoretical and empirical coverage of the application of economic analysis to political behavior and institutions. This course is designed for students wishing to specialize in political economy but may also be useful for students specializing in related areas, such as development economics and macroeconomics. After starting with a basic overview of candidates and voters, we then turn to specific topics in the areas of electoral systems, legislatures and legislative bargaining, the role of the media, local public finance, and fiscal federalism.

Spr	ECON2260	S01	23930	M	3:00-5:30(13)	(B. Knight)

ECON 2270. Political Economy II.
This is the second course in the political economy sequence. It continues the theoretical and empirical coverage of the economic analysis to political behavior and institutions. This course is designed for students wishing to specialize in political economy. A variety of topics will be covered paying special attention to the formation of skills necessary to become a producer of research and moving away from being just a consumer.

ECON 2310. Labor Economics.
This course teaches core topics in labor economics including labor supply, labor demand, simple search models, and a series of additional selected topics. The primary focus will be on linking theoretical models to tests in the empirical literature. We will typically cover papers and topics in detail, rather than survey the literature. When required, we also cover tools in applied econometrics.

Fall	ECON2310	S01	14378	T	4:00-6:30(07)	(L. Lagos)

ECON 2320. Applied Methods.
This course examines identification issues in empirical microeconomics. The focus on the sensible application of econometric methods to empirical problems in economics and policy research. The course examines issues that arise when analyzing non-experimental data and provides a guide for tools that are useful for applied research. By the end of the course, students should have a firm grasp of the types of research designs and methods that can lead to convincing analysis and be comfortable working with large-scale data sets.

ECON 2330. Research Design and Falsification Testing in Health and Labor Economics.
We cover how to use credible research designs to draw reliable inferences from non-experimental data in empirical research in health and labor economics. Particular emphasis is placed on constructing rigorous falsification tests to scrutinize the validity of one’s research design, statistical model and findings. The class also discusses how a basic understanding of economic theory, institutions and context can inform the analysis and generate decisive falsifications. By semester’s end, students should have a firm grasp of the types of research designs and statistical tools that can be used to address selection problems in empirical microeconomics research; be comfortable working with large-scale data sets; and be able to critically evaluate published research and present their own research.

ECON 2340. Labor Economics II.
This is the second course in a two-course, graduate-level sequence in labor economics. The course will focus on covering theory and evidence on wage structures, skill demands, inequality, employment and job loss. Particular areas of focus are: (1) wage determination, equalizing wage differentials, and models of discrimination; and (2) the roles played by supply, demand, labor market institutions, and technology in the evolving distribution of earnings.

Spr	ECON2340	S01	24042	TTh	10:30-11:50(09)	(L. Lagos)

ECON 2350. Inequality and Social Policy.
This is a survey course about economic and social inequality with a focus on the applied methods used to examine inequality. The course will provide a broad perspective on the causes and consequences of inequality, develop an understanding of the data and methods used to measure and analyze changes in income and wellbeing, and review selected topics relating to anti-poverty and social policy programs.

ECON 2350B. Inequality and Public Policies.
This course on economic inequality provides an overview of the most recent empirical research on the extent, the anatomy and the historical evolution of inequality. In addition to these descriptives, it focuses on the causes of inequality, covering research designs from the research frontier. The course also reviews the role of government policies, such as anti-poverty programs and progressive taxes on income and on capital, in affecting inequality.

ECON 2360. Economics of Health and Population.
This course is designed to do the following three things: 1) build on your knowledge of the methodological problems and approaches in applied microeconomics with applications from the health economics literature; 2) survey the major topics in Health Economics, and 3)better prepare you to write an empirical microeconomics thesis. By the end of this course you should understand how to draw credible inference using non-experimental data and be able to contribute to public policy debates regarding health and medical care in the US.

ECON 2370. Inequality: Theory and Evidence.
This course uses economic theory to study the problems of inequality. The emphasis is two-fold: (1) to explain persistent resource disparities between individuals or social groups; and, (2) to assess the welfare effects of various equality-promoting policies. Topics include racial stereotypes, residential segregation, distributive justice, incentive effects of preferential policies, dysfunctional identity, and endogenous inequality due to the structure of production and exchange.

ECON 2380. The Economics of Children and Families.
We will consider the current research in economic behavior related to children, child health, and child economic and social well-being. We begin with the model of human capital development and the technology of skill formation and then proceed to empirical work. Individual topics covered will include: models of human capital and the technology of skill formation, the fetal origins of disease, non-marital and teen fertility, the evolution of gaps in human capital, models of parental investment, pre-school environments, the impact of income and in-kind transfer programs on child health and well-being, neighborhood influences, adolescent risky behavior.

ECON 2390. Applied Econometrics I.
The main focus of this course is on econometrics methods for causal inference, program evaluations, and evidence-based policy design, which has become essential tools for empirical work in economics. This course covers a variety of empirical study designs, and for each design, introduces suitable econometric methods. They include randomized control trials, observational studies with unconfoundedness, instrumental variable methods, regression discontinuity designs, panel data designs and difference-in-differences, empirical welfare maximization methods, etc. The course assumes knowledge of statistics and econometrics at the level of first-year Ph.D econometrics courses such as ECON 2030 and ECON 2040.

Fall	ECON2390	S01	14119	MW	10:30-11:50(16)	(T. Kitagawa)

ECON 2400. Applied Econometrics II.
This is the second half of a two-semester graduate-level course on applied econometrics, which builds on core material from econometric theory as well as second-year applied microeconomics field courses. We will focus on the “sensible” application of various econometric methods to empirical problems in economics and policy research, primarily in non-experimental data. By the end of the course, students should have a firm grasp of the research designs and methods that are commonly used to address selection/endogeneity problems in empirical economics and be comfortable working with large-scale data sets. The primary assignment in the course is the production of an original research paper, with an in-class presentation. Other assignments will include a replication exercise and a referee report.

Spr	ECON2400	S01	23882	MW	9:00-10:20	(P. Hull)

ECON 2410. Urbanization.
The first part of the course covers social interactions, productivity spillovers, systems of cities models, urban growth, and rural-urban migration. The second part of the course covers topics such as durable housing, land market regulation and exclusion, and local political economy. Besides covering basic theoretical models, emphasis is placed on working through recent empirical papers on both the USA and developing countries. Prerequisites: ECON 2050 and 2060.

Spr	ECON2410	S01	23883	MW	10:30-11:50	(M. Turner)

ECON 2420. The Structure of Cities.
This course covers standard urban land use theory, urban transportation, sorting across political jurisdictions, hedonics, housing, segregation and crime. Empirical examples are taken primarily from the United States. After taking the course, students will have an understanding of standard urban theory and of empirical evidence on various important applied urban topics. In addition, students will gain practical experience in manipulating spatial data sets and simulating urban models.

ECON 2450. Exchange Scholar Program.

Fall	ECON2450	S01	13304	Arranged	'To Be Arranged'
Fall	ECON2450	S02	13305	Arranged	'To Be Arranged'
Fall	ECON2450	S03	13306	Arranged	'To Be Arranged'
Spr	ECON2450	S01	23244	Arranged	'To Be Arranged'

ECON 2460. Applied Macroeconomics and Text Analysis.
Economists increasingly use advanced text analysis (NLP) and machine-learning methods to study high-dimensional, unstructured data. This course provides theoretical grounding and hands-on experience applying NLP to core macroeconomic topics, from policymaker communication to patent innovation and media-based sentiment indices. Students will learn methods—dictionary approaches, topic modeling, sentiment analysis, large language models—and see how to integrate textual indicators into macro tools like local projections and factor models. The Python-based assignments will build technical foundations, and the major assessments of the course – a replication study and original research project – will foster skill development toward frontier research.

Fall	ECON2460	S01	16125	MW	9:00-10:20(09)	(A. Handlan)

ECON 2470. Industrial Organization.
The focus of this course will be on empirical models for understanding the interactions between firms and consumers in imperfectly competitive markets. Lectures and problem sets will teach canonical models and methods; class discussion will focus on applications of these methods, especially applications outside of traditional areas of industrial organization. Students who take this class will be prepared to conduct research in industrial organization or to "export" methods from industrial organization to other areas of applied microeconomics.

ECON 2480. Public Economics.
Theoretical and empirical analysis of the role of government in private economies. Topics include welfare economics, public goods, externalities, income redistribution, tax revenues, public choice, and fiscal federalism.

ECON 2485. Public Economics I.
This course covers core issues in the design of optimal government policies, and the empirical analysis of those policies in the world. In addition, this course will familiarize students with the basic empirical methods and theoretical models in applied microeconomics. Emphasis is placed on connecting theory to data to inform economic policy. Specific topics include efficiency costs and incidence of taxation, income and corporate taxation, optimal tax theory, tax expenditures and tax-based transfer programs, welfare analysis in behavioral models, and social security and retirement policy.

ECON 2490. Public Finance II.
This course examines empirical work on (1) individual taxation and (2) human capital production. The goal of the course will be to provide graduate students with an overview of recent empirical methods and findings in these areas, and to identify promising research questions for their own work.

ECON 2500. Advanced International Economics.
This is the first field course (part of a sequence) for Ph.D. students on International Macroeconomics and Finance. The course discusses the classic puzzles and the seminal questions in the literature, and explore some of the areas of research that are currently most active. The goal is two-fold. First, introduce you to the modern models, tools, data and topics of International Macroeconomics and Finance. Second, give you the necessary background on the literature to help you navigate amongst possible dissertation topics. The course will have a particular focus on empirical/applied side of the seminal questions in the literature and discuss the new methods and data that the literature is adopting currently.

Spr	ECON2500	S01	24224	T	4:00-6:30(16)	(S. Kalemli-Ozcan)

ECON 2510. Economic Development I.
This course is part of a two-part graduate sequence in development economics. The goal of this sequence is build expertise in the economic field of development economics through the application of theoretical and empirical microeconomic analysis. If development is going to be your major field you are expected to do both courses. Both courses are generally taught in each academic year, though the distribution of content may vary by year. You may take the courses in either order. Topics that are covered in the two courses include fertility, marriage, education, health, infrastructure, agriculture and natural resources consumption, health, firms, labor and credit markets, and social preferences. The courses explore the use of randomized control trials, survey and administrative data, and experimental methods. For details in any particular year please consult the respective syllabi.

Fall	ECON2510	S01	14379	TTh	9:00-10:20(05)	(B. Steinberg)

ECON 2520. Economic Development II.
This course is part of a two-part graduate sequence in development economics. The goal of this sequence is build expertise in the economic field of development economics through the application of theoretical and empirical microeconomic analysis. If development is going to be your major field you are expected to do both courses. Both courses are generally taught in each academic year, though the distribution of content may vary by year. You may take the courses in either order. Topics that are covered in the two courses include fertility, marriage, education, health, infrastructure, agriculture and natural resources consumption, health, firms, labor and credit markets, and social preferences. The courses explore the use of randomized control trials, survey and administrative data, and experimental methods. For details in any particular year please consult the respective syllabi.

Spr	ECON2520	S01	24043	W	3:00-5:30(10)	(E. Macchi)

ECON 2530. Experimental and Behavioral Economics.
There is a rich literature on experimental economics, which sheds light on whether the predictions of economic theory materialize in controlled, laboratory settings. We will start by studying the methodology of experimental economics, and then into a range of classic and more recent topics that have been taken to the laboratory. A large focus of the class will be applications of experimental methods to behavioral economics.

Spr	ECON2530	S01	24044	TTh	2:30-3:50(11)	(K. Rozen)

ECON 2580. International Trade.
General equilibrium analysis of the theory of international trade and trade policy under perfect competition; trade under imperfect competition; strategic trade policy; trade and growth; and the political economy of trade policy determination. Empirical analysis of trade theories and policy. Additional topics include the theory of preferential trading areas, trade and labor, and the analytics of trade policy reform.

ECON 2590. Topics in International Economics.
Advanced theoretical and empirical research topics in international economics emphasizing positive and normative analysis of trade, trade policy and international trading agreements, policy reform and stabilization, exchange rate determination, sovereign debt and currency crises and optimum currency areas.

ECON 2600. Bayesian and Structural Econometrics.
This course will cover a number of topics in Bayesian econometrics and estimation of structural dynamic discrete choice models. The Bayesian econometrics part of the course will start with introductory textbook material (Geweke, 2005, Contemporary Bayesian Econometrics and Statistics, denoted by G). A list of 11 topics with corresponding readings is given below. Topics 1-5 will be covered. If time permits, a subset of topics 6-11 determined by interests of the course participants will be covered as well. Readings marked with asterisk * are not required.

Fall	ECON2600	S01	14121	TTh	10:30-11:50(13)	(A. Norets)

ECON 2610. Applied Econometrics.
Topics in applied econometrics. Both cross-sectional and time series issues will be discussed. Special emphasis will be placed on the link between econometric theory and empirical work.

ECON 2620. Topics in Econometrics.
This course will begin with a survey of the literature on identification using instrumental variables, including identification bounds, conditional moment restrictions, and control function approaches. The next part of class will cover some of the theoretical foundations of machine learning, including regularization and data-driven choice of tuning parameters. We will discuss in some detail the canonical normal means model, Gaussian process priors, (empirical) Bayes estimation, and reproducing kernel Hilbert space norms. We will finally cover some selected additional topics in machine learning, including (deep) neural nets, text as data (topics models), multi-armed bandits, and data visualization.

ECON 2630. Econometric Theory.
Standard and generalized linear models, simultaneous equations, maximum likelihood, Bayesian inference, panel data, nonlinear models, asymptotic theory, discrete choice, and limited dependent variable models.

ECON 2640. Microeconometrics.
Topics in microeconometrics treated from a modern Bayesian perspective. Limited and qualitative dependent variables, selectivity bias, duration models, panel data.

ECON 2660. Recent Advances in the Generalized Method of Moments.
Method of Moments (GMM) and Empirical Likelihood (EL). Kernel methods for density and regression estimation. Optimal instruments and local EL. Applications to non-linear time series models, Euler equations and asset pricing.

ECON 2800. Macroeconomic Slack.
This course will cover research topics related to macroeconomic slack, both on the labor market (unemployment) and on the product market (idleness). It will address the following questions:
Why does slack exist at the macroeconomic level?
Why does slack vary over time? And how is this related to price flexibility or rigidity?
What is the socially optimal level of slack?
How should monetary policy respond to fluctuations in slack over the business cycle?
How should fiscal policy respond to fluctuations in slack over the business cycle?
What happens to slack at the zero lower bound?

ECON 2820. Discrete Dynamical Systems and Applicaton to Intertemporal Economics.
This course will focus on the qualitative analysis of discrete dynamical systems and their application for Intertemporal Economics.

ECON 2830. Economic Growth and Comparative Development.
This course explores the origins of wealth and inequality across the globe. It examines: (i) the determinants of the growth process since the emergence of Homo sapiens, (ii) the roots of the dramatic transformation in living standards in the past two centuries, and (iii) the role of deeply rooted geographical, institutional, and cultural characteristics as well as human diversity in the uneven development across the countries and regions. The analysis proposes a resolution for some of the most fundamental mysteries of the journey of humanity: What trapped humankind in poverty for most of human existence? What sparked the massive metamorphosis in living standards over the past two centuries? And what led to the emergence of immense inequality across nations?

Spr	ECON2830	S01	23886	F	9:30-11:50	(O. Galor)

ECON 2840. Empirical Analysis of Economic Growth.
Examines economic growth, focusing on the effects of technological change, fertility, income inequality, and government policy.

ECON 2860. Comparative Development.
Weighing the shadow of history on contemporary economic performance occupies an increasing part of the agenda among growth and development economists. This course will focus on recent contributions in the literature of the historical determinants of comparative development paying particular attention on how to integrate the use of Geographic Information Systems (GIS) in the research inquiry. The goal is to get you thinking about the big historical processes that have shaped the modern world. We will go over background concepts, critically review recent works and talk about new research designs, like that of spatial regression discontinuity.

Fall	ECON2860	S01	14123	M	4:40-7:00(03)	(S. Michalopoulos)

ECON 2890C. Topics in Macro and Monetary Economics.
This is a graduate class that covers selected topics at the intersection of macroeconomics and monetary economics, for students in the second year of the PhD and above. The leading theme of the class is the current economic crisis and how it can be modeled. The syllabus is evolving.

Spr	ECON2890C	S01	23887	TTh	2:30-3:50(11)	(G. Eggertsson)

ECON 2890D. Topics in Macroeconomics, Development and Trade.
This is a graduate class that covers selected topics at the intersection of macroeconomics, economic development and trade, for students in the second year of the PhD and above. The leading theme of the class is the determinants of the observed cross-country differences in income per capita and growth rates, with a focus on the long run. We start by reviewing theories where factor markets function perfectly and only aggregates matter. We then move to non-aggregative theories, placing special emphasis on theories of financial frictions. We spend some time studying the stochastic growth model with partially uninsurable idiosyncratic risk.

ECON 2920A. Advanced Econometrics - Microeconometrics from a Semiparametric Perspective.
This course is concerned with a rigorous, state-of-the-art introduction to Micro-econometrics. In particular, we will review many of the more recent contributions in Microeconometric Theory. While the focus of this course is theoretical, we will also be concerned with applications and the applicability of these methods. More specifically, we will consider nonparametric regression and density estimation methods, as well as methods and models for binary and categorial dependent variables, for limited dependent variables in general, and for models of selection. We will also discuss more general nonparametric IV models. Prerequisites are: Introductory Econometrics (at the level of the Wooldridge (2002).

ECON 2920B. Topics in Game Theory.
No description available.

ECON 2930. Workshop in Applied Economics.
No description available.

Fall	ECON2930	S01	14124	Th	4:00-5:30(04)	'To Be Arranged'
Spr	ECON2930	S01	23888	Th	4:00-5:30	'To Be Arranged'

ECON 2950. Workshop in Econometrics.
No description available.

Fall	ECON2950	S01	14125	T	4:00-5:30(07)	'To Be Arranged'
Spr	ECON2950	S01	23889	T	4:00-5:30	'To Be Arranged'

ECON 2960. Workshop in Macroeconomics and Related Topics.
No description available.

Fall	ECON2960	S01	14126	W	4:00-5:30(10)	'To Be Arranged'
Spr	ECON2960	S01	23890	W	4:00-5:30	'To Be Arranged'

ECON 2970. Workshop in Economic Theory.
No description available.

Fall	ECON2970	S01	14127	M	12:00-1:15(15)	'To Be Arranged'
Spr	ECON2970	S01	23891	M	12:00-1:15	'To Be Arranged'

ECON 2971. Race and Inequality Seminar.
This is a workshop primarily for graduate students and faculty in the Department of Economics where original research on issues of race and inequality are presented by external visitors, along with Brown faculty and graduate students. No course credit.

ECON 2980. Reading and Research.
Individual research projects. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ECON 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.

Fall	ECON2990	S01	13307	Arranged		'To Be Arranged'
Spr	ECON2990	S01	23245	Arranged		'To Be Arranged'