# **Economics**

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**

	al Credits		11
At le	east five additional	1000-level Economics courses. 3	5
	or ECON 1630	Mathematical Econometrics I	
EC	ON 1629	Applied Research Methods for Economists	1
C	or APMA 1655	Introduction to Probability and Statistics with Theory	
C	or APMA 1650	Introduction to Probability and Statistics with Calculus	
C	or MATH 1620	Mathematical Statistics	
EC	ON 1620	Introduction to Econometrics	1
EC	ON 1210	Intermediate Macroeconomics	1
C	or ECON 1130	Intermediate Microeconomics (Mathematical)	
EC	ON 1110	Intermediate Microeconomics	1
C	or a higher-level ma	ath course. <sup>2</sup>	
	or MATH 0100	Single Variable Calculus, Part II	
EC	ON 0170	Essential Mathematics for Economics	1
EC	ON 0110	Principles of Economics <sup>1</sup>	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).

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. <sup>3</sup> 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 <sup>1</sup>

In addition to fulfilling the other concentration requirements, students on the Professional Track must complete 2-6 months of full-time professional work related to their concentration, with a given internship or job lasting at least one month. International students must declare the professional track of their concentration in order for U.S. based internships to qualify for Curricular Practical Training (CPT). Such work is normally done at a company, but may also be at a university under the supervision of a faculty member. Professional experiences completed over winter break cannot be used to fulfill this requirement. On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience, to be approved by their concentration advisor.

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International students must declare the professional track of their concentration in order for U.S. based internships to qualify for Curricular Practical Training (CPT). In addition to their other concentration requirements, students must complete two two-to-four month full time professional experiences, doing work that is related to their concentration program. Such work is normally done at a company or a non profit, but may also be at a university under the supervision of a faculty member. Upon completion of each profession experience, the student must write a reflective essay on ASK, to be approved by their concentration advisor

### **Business Economics Track**

ECON 0110	Principles of Economics <sup>1</sup>	1
ECON 0170	Essential Mathematics for Economics	1
or MATH 0100	Single Variable Calculus, Part II	
or a higher level m	ath 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 <sup>2</sup>	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 Econor	mics 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

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.

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

future).

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.

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 <sup>1</sup>

In addition to fulfilling the other concentration requirements, students on the Professional Track must complete 2-6 months of full-time professional work related to their concentration, with a given internship or job lasting at least one month. International students must declare the professional track of their concentration in order for U.S. based internships to qualify for Curricular Practical Training (CPT). Such work is normally done at a company, but may also be at a university under the supervision of a faculty member. Professional experiences completed over winter break cannot be used to fulfill this requirement. On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience, to be approved by their concentration advisor.

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International students must declare the professional track of their concentration in order for U.S. based internships to qualify for Curricular Practical Training (CPT). In addition to their other concentration requirements, students must complete two two-to-four month full time professional experiences, doing work that is related to their concentration program. Such work is normally done at a company or a non profit, but may also be at a university under the supervision of a faculty member. Upon completion of each profession experience, the student must write a reflective essay on ASK, to be approved by their concentration advisor.

# **Public Policy Track**

ECON 0110	Principles of Economics <sup>1</sup>	1
ECON 0170	Essential Mathematics for Economics <sup>2</sup>	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 <sup>3</sup>	1
ECON 1629	Applied Research Methods for Economists	1
or ECON 1630	Mathematical Econometrics I	·
	ctives 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 1340	Economics of Global Warming	
ECON 1350	Environmental Economics and Policy	
ECON 1355	Environmental Issues in Development Economics	
ECON 1360	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 preapproved options are

	AFRI 1920	Health Inequality in Historical Perspective	
	PHP 0310	Health Care in the United States	
	PHP 0330	Health Law and Policy	
	PHP 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 al	so request advisor permission for other	

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Students may also request advisor permission for othe 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. In cases (a) and (b), a capstone form must be submitted to the department.

Total Credits 13

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).

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.

<sup>3</sup> APMA 1650, APMA 1655, CSCI 1450, or MATH 1620 can substitute for ECON 1620

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

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

### Professional Track 1

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#### Honors

- 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.