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 (https://economics.brown.edu/academics/undergraduate/concentrations/declaring/) 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.

Standard Economics Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0170</td>
<td>Essential Mathematics for Economics</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0100</td>
<td>Single Variable Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td>or a higher-level math course.</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
<td></td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1620</td>
<td>Mathematical Statistics</td>
<td></td>
</tr>
<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
<td></td>
</tr>
<tr>
<td>or APMA 1655</td>
<td>Honors Statistical Inference I</td>
<td></td>
</tr>
<tr>
<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 1630</td>
<td>Mathematical Econometrics I</td>
<td></td>
</tr>
</tbody>
</table>

At least five additional 1000-level Economics courses. 3

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.

Business Economics Track

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
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</tr>
<tr>
<td>ECON 0170</td>
<td>Essential Mathematics for Economics</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0100</td>
<td>Single Variable Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td>or a higher level math course</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>ECON 0710</td>
<td>Financial Accounting</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
<td></td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1420</td>
<td>Industrial Organization</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
<td></td>
</tr>
<tr>
<td>or APMA 1655</td>
<td>Honors Statistical Inference I</td>
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<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
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</tr>
<tr>
<td>or ECON 1630</td>
<td>Mathematical Econometrics I</td>
<td></td>
</tr>
<tr>
<td>ECON 1710</td>
<td>Investments I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1720</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
</tbody>
</table>

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 1780 Advanced Topics in Corporate Finance
- 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.

Public Policy Track

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0170</td>
<td>Essential Mathematics for Economics</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0100</td>
<td>Single Variable Calculus, Part II</td>
<td></td>
</tr>
</tbody>
</table>

Economics
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: 5
ECON 1000  Using Big Data to Solve Economic and Social Problems
ECON 1070  Race, Crime, and Punishment in America
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 pre-approved options are:

AFRI 1920  Health Inequality in Historical Perspective
CLPS 0220  Making Decisions
CLPS 0700  Social Psychology
IAPA 0110  Introduction to Public Policy
PHP 0310  Health Care in the United States
PHP 0330  Public Health Policy
PHP 0850  Fundamentals of Epidemiology
POLIS 0010  Introduction to the American Political Process
POLIS 1050  Ethics and Public Policy
POLIS 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. 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. 4

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

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

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.

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 1660 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.

Professional Track

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.

On completion of each professional experience, the student must
write and upload to ASK a reflective essay about the experience, to be
approved by the student's concentration advisor:

1 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.