

ECONOMICS, BS

A major in Economics gives students a greater understanding of how people, businesses, and governments respond to their economic environments. Many of the issues that fill the newspapers—jobs, wages, taxes, the cost of living, inequality, pollution, poverty, and economic growth—are, in fundamental ways, economic issues. The daily decisions of businesses and consumers are largely economic. Economists seek to understand the decisions of businesses, consumers, and current economic issues by developing a systematic and thorough understanding of precisely how the economic system operates, including the mechanisms by which resources are allocated, prices determined, income redistributed, and economic growth promoted.

The analytical method of economics recognizes that various choices are open to a society in solving its economic problems. Students are often attracted to economics as a discipline precisely because they want to understand the decisions of people and businesses and to better understand and evaluate economic policy. To begin to approach these issues as an economist requires an understanding of economic theory, empirical methodology, and an understanding of the institutional details and advanced practice gained from intensive study of specific subfields of economics. Consequently, the Economics major is organized around a progression of courses that first provides a broad introduction to economics, then develops the theoretical tools that provide the foundation of modern economic thought, and finishes with advanced courses designed to provide greater in-depth knowledge of specific fields (such as labor markets, industrial organization, international economics, public finance, banking and finance, macroeconomics, microeconomics, and econometrics).

An Economics major is valuable in the job market because the major is designed to train people to think analytically and clearly about a wide variety of issues. Economics graduates go on to pursue careers in a variety of fields including finance, data analytics, and public policy. An Economics major is also good preparation for graduate work in a number of areas: business, law, public policy, economics, public administration, industrial relations, international relations, urban and regional planning, and environmental studies.

HOW TO GET IN

HOW TO GET IN DECLARING THE MAJOR

- Complete one calculus course, MATH 211, MATH 217, MATH 221 or MATH 222 (MATH 217, MATH 221 or MATH 222 for the Mathematical Emphasis option), and
- Complete any one ECON course (except ECON 100) at UW–Madison, and
- Achieve a 2.000 GPA in all ECON courses and major courses (i.e., calculus) at the time of declaration.

Students may not be declared in both the Economics major and the Certificate in Economic Analytics.

For instructions on how to declare the Economics major, visit <https://econ.wisc.edu/undergraduate/declaring-an-econ-major/>

REQUIREMENTS

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin–Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (<https://guide.wisc.edu/undergraduate/#requirementsforundergraduatetext>) section of the Guide.

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| General Education | <ul style="list-style-type: none"> • Breadth—Humanities/Literature/Arts: 6 credits • Breadth—Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits • Breadth—Social Studies: 3 credits • Communication Part A & Part B * • Ethnic Studies * • Quantitative Reasoning Part A & Part B * |
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* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

COLLEGE OF LETTERS & SCIENCE DEGREE REQUIREMENTS: BACHELOR OF SCIENCE (BS)

Students pursuing a Bachelor of Science degree in the College of Letters & Science must complete all of the requirements below. The College of Letters & Science allows this major to be paired with either the Bachelor of Arts or the Bachelor of Science degree requirements.

BACHELOR OF SCIENCE DEGREE REQUIREMENTS

Mathematics	Complete two courses of 3+ credits at the Intermediate or Advanced level in MATH, COMP SCI, or STAT subjects. A maximum of one course in each of COMP SCI and STAT subjects counts toward this requirement.
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Language	Complete the third unit of a language other than English.
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L&S Breadth	<p>Complete:</p> <ul style="list-style-type: none"> • 12 credits of Humanities, which must include at least 6 credits of Literature; and • 12 credits of Social Science; and • 12 credits of Natural Science, which must include 6 credits of Biological Science and 6 credits of Physical Science.
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Liberal Arts and Science Coursework	Complete at least 108 credits.
Depth of Intermediate/Advanced Coursework	Complete at least 60 credits at the Intermediate or Advanced level.
Major	Declare and complete at least one major.
Total Credits	Complete at least 120 credits.
UW-Madison Experience	Complete both: <ul style="list-style-type: none"> • 30 credits in residence, overall, and • 30 credits in residence after the 86th credit.
Quality of Work	<ul style="list-style-type: none"> • 2.000 in all coursework at UW-Madison • 2.000 in Intermediate/Advanced level coursework at UW-Madison

NON-L&S STUDENTS PURSUING AN L&S MAJOR

Non-L&S students who have permission from their school/college to pursue an additional major within L&S only need to fulfill the major requirements. They do not need to complete the L&S Degree Requirements above.

OPTIONS IN THE MAJOR

The department offers two major options. Students may declare only one option and must complete all requirements including Residence and Quality of Work standards. Options are:

Option A: Economics provides a well-rounded major in economics that is valuable for employment following graduation, or subsequent graduate work in business, law, public policy, and related disciplines.

Option B: Economics—Mathematical Emphasis provides students with the mathematical and statistical background needed for in-depth study of the analytical aspects of economics. Its requirements are designed to prepare students for graduate study in economics and related fields, or for careers as professional economists in business or government. For specific Mathematical Emphasis requirements, see the section below (p. 3).

REQUIREMENTS FOR THE ECONOMICS MAJOR

MATH AND STATISTICS

Code	Title	Credits
Mathematics (complete one):		5-10
MATH 221	Calculus and Analytic Geometry I	
MATH 171 & MATH 217	Calculus with Algebra and Trigonometry I and Calculus with Algebra and Trigonometry II	
MATH 211 & MATH 213	Survey of Calculus I and Survey of Calculus 2	
MATH 211 & ECON 205	Survey of Calculus I and Quantitative Tools for Economics	
Statistics (complete one):		3-4
ECON 310	Statistics: Measurement in Economics (Recommended)	

ECON 400	Introduction to Applied Econometrics	
ECON 410	Introductory Econometrics	
MATH/STAT 309	Introduction to Probability and Mathematical Statistics I	
MATH/STAT 431	Introduction to the Theory of Probability	
STAT 311	Introduction to Theory and Methods of Mathematical Statistics I	
STAT 324	Introduction to Statistics for Science and Engineering	
STAT 340	Data Science Modeling II	

Total Credits **8-14**

ECONOMICS

30 credits to include:

Code	Title	Credits
Principles of Economics (complete one):		4-8
ECON 101 & ECON 102	Principles of Microeconomics and Principles of Macroeconomics	
ECON 111	Principles of Economics—Accelerated Treatment	
Microeconomic Theory (complete one):		3-4
ECON 301	Intermediate Microeconomic Theory	
ECON 311	Intermediate Microeconomic Theory - Advanced Treatment (Honors Econ)	
Macroeconomic Theory (complete one):		3-4
ECON 302	Intermediate Macroeconomic Theory	
ECON 312	Intermediate Macroeconomic Theory - Advanced Treatment	
Two Core ECON courses:¹		6-8
ECON 400	Introduction to Applied Econometrics	
ECON 409	Study Abroad in Advanced Economics	
ECON 410	Introductory Econometrics	
ECON 435	The Financial System	
ECON 441	Analytical Public Finance	
ECON 442	Macroeconomic Policy	
ECON 448	Human Resources and Economic Growth	
ECON 450	Wages and the Labor Market	
ECON 455	Behavioral Economics	
ECON 458	Industrial Structure and Competitive Strategy	
ECON 460	Economic Forecasting	
ECON 461	International Macroeconomics	
ECON 464	International Trade	
ECON 467	International Industrial Organizations	
ECON 468	Industrial Organization and Imperfect Competition	

ECON 475	Economics of Growth
ECON/ FINANCE 503	Markets with Frictions
ECON 521	Game Theory and Economic Analysis
ECON 522	Law and Economics
ECON/R M I 530	Insuring Life's Risks: Health, Aging, and Policy
ECON 535	Experimental Economics
ECON/ POP HLTH/ PUB AFFR 548	The Economics of Health Care
ECON 570	Fundamentals of Data Analytics for Economists
ECON 580	Honors Tutorial in Research Project Design
ECON 621	Markets and Models
ECON 623	Population Economics
ECON 661	Issues in International Macroeconomics
ECON 664	Issues in International Trade
ECON 666	Issues in International Finance
ECON 690	Topics in Economics
ECON 695	Topics in Economic Data Analysis
Electives	6-14
Complete any Core econ course not used above or one of these courses:	
ECON/ FINANCE 300	Introduction to Finance
ECON/ HIST SCI 305	Development of Economic Thought
ECON/A A E/ REAL EST/ URB R PL 306	The Real Estate Process
ECON 309	Study Abroad in Intermediate Economics
ECON 315	Data Visualization for Economists
ECON/ FINANCE 320	Investment Theory
ECON 321	Sports Economics
ECON 325	Economics of Race in the United States
ECON 330	Money and Banking
ECON 340	Microeconomics in Popular Culture
ECON/A A E/ ENVIR ST 343	Environmental Economics
ECON 350	The Chinese Economy
ECON 355	The Economics of Growing-up and Getting Old
ECON 370	Economics of Poverty and Inequality
ECON/A A E 371	Energy, Resources and Economics
ECON 390	Contemporary Economic Issues
ECON/REAL EST/ URB R PL 420	Urban and Regional Economics
ECON/A A E 421	Economic Decision Analysis

ECON/ENVIR ST/ POLI SCI/ URB R PL 449	Government and Natural Resources
ECON/A A E/ INTL BUS 462	Latin American Economic Development
ECON 465	The American Economy to 1865
ECON/ HISTORY 466	The American Economy Since 1865
ECON/A A E 473	Economic Growth and Development in Southeast Asia
ECON/A A E 474	Economic Problems of Developing Areas
ECON/A A E 477	Agricultural and Economic Development in Africa
ECON/ PHILOS 524	Philosophy and Economics
ECON/A A E 526	Quantitative Methods in Agricultural and Applied Economics
ECON/A A E/ F&W ECOL 531	Natural Resource Economics
ECON/A A E/ ENVIR ST/ URB R PL 671	Energy Economics

Total Credits **30**

REQUIREMENT FOR THE MATHEMATICAL EMPHASIS:

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- **ECONOMICS: MATHEMATICAL EMPHASIS ([HTTPS://GUIDE.WISC.EDU/UNDERGRADUATE/LETTERS-SCIENCE/ECONOMICS/ECONOMICS-BA/ECONOMICS-MATHEMATICAL-EMPHASIS-BA/](https://guide.wisc.edu/undergraduate/letters-science/economics/economics-ba/economics-mathematical-emphasis-ba/))**

RESIDENCE AND QUALITY OF WORK

- 2.000 GPA in all ECON and major courses
- 2.000 GPA on 15 upper-level major credits taken in residence²
- 15 credits in ECON, taken on the UW-Madison campus

HONORS IN THE ECONOMICS MAJOR

To participate in Honors in the Economics Major, students must be declared in the Mathematical Emphasis option. For further information, see the Mathematical Emphasis requirements (<https://guide.wisc.edu/undergraduate/letters-science/economics/economics-ba/economics-mathematical-emphasis-ba/>) and consult your Economics undergraduate advisor.

FOOTNOTES

¹ At least two core ECON courses must be taken in residence at UW-Madison, and not via transfer or a UW-Madison Study Abroad program.

² Intermediate and Advanced level ECON courses are Upper Level in the major.

UNIVERSITY DEGREE REQUIREMENTS

Total Degree To receive a bachelor's degree from UW–Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

Residency Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. "In residence" means on the UW–Madison campus with an undergraduate degree classification. "In residence" credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.

Quality of Work Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.

LEARNING OUTCOMES

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1. Understand the fundamental concepts of economics and how those concepts apply to real world issues.
2. Construct and evaluate economic models, their assumptions, and conclusions.
3. Acquire a diverse set of skills and strategies in mathematical reasoning/statistical and computational techniques/deductive logic/problem solving.
4. Use mathematics/computational/statistical techniques to analyze real world situations and policies.
5. Use economic analysis to critically evaluate public policy proposals.

FOUR-YEAR PLAN

FOUR-YEAR PLAN

This Four-Year Plan is only one way a student may complete an L&S degree with this major. Many factors can affect student degree planning, including placement scores, credit for transferred courses, credits earned by examination, and individual scholarly interests. In addition, many students have commitments (e.g., athletics, honors, research, student organizations, study abroad, work and volunteer experiences) that necessitate they adjust their plans accordingly. Informed students engage in their own unique Wisconsin Experience by consulting their academic advisors, Guide, DARS, and Course Search & Enroll for assistance making and adjusting their plan.

Freshman

Fall	Credits Spring	Credits
Quantitative Reasoning A	4 ECON 101	4
Communication A	3 Ethnic Studies	3

Foreign Language	4 MATH 221	5
Physical Science Breadth	3 Foreign Language	4
	14	16

Sophomore

Fall	Credits Spring	Credits
ECON 102	4 ECON 301	4
Biological Science Breadth	3 ECON 310	4
Foreign Language	4 Humanities Breadth	4
Literature Breadth	3 Foreign Language	4
INTER-LS 210	1	
	15	16

Junior

Fall	Credits Spring	Credits
ECON 302	4 Econometrics (ECON 400 or 410)	4
Economics elective or core econ course	4 Humanities Breadth	3
Literature Breadth	3 Communication B	4
Science Breadth	4 Elective	3
	15	14

Senior

Fall	Credits Spring	Credits
Core econ course	4 Elective	4
Core course	4 Elective	4
Elective	3 Elective	4
Elective	4 Elective	3
	15	15

Total Credits 120

THREE-YEAR PLAN

THREE-YEAR PLAN

This Sample Three-Year Plan is a tool to assist students and their advisor(s). Students should use it –along with their DARS report, the Degree Planner, and Course Search & Enroll tools – to make their own three-year plan based on their placement scores, credit for transferred courses and approved examinations, and individual interests.

Three-year plans may vary considerably from student to student, depending on their individual preparation and circumstances. Students interested in graduating in three years should meet with an advisor as early as possible to discuss feasibility, appropriate course sequencing, post-graduation plans (careers, graduate school, etc.), and opportunities they might forgo in pursuit of a three-year graduation plan.

DEPARTMENTAL EXPECTATIONS

A three-year degree is feasible for students with a variety of backgrounds and specific preparation. Students planning to graduate within three years with an Economics major should consult with an advisor (<https://econ.wisc.edu/undergraduate/find-academic-advising/>) as soon as possible, and should ideally be entering the University with a minimum of 30 advanced standing credits, and have satisfied the following requirements with course credit or via placement examination:

- ECON 101 Principles of Microeconomics
- Communication Part A
- Quantitative Reasoning Part A
- Placement into MATH 221 Calculus and Analytic Geometry 1
- 3 credits of Literature, 3 credits of Biological Science
- 3-4 units of foreign language

Summer coursework is not required to finish in three years, but students planning to finish in three years will find it easier if they take either an intermediate theory course during Summer One or an advanced elective during Summer Two.

First Year

Fall	Credits Spring	Credits Summer	Credits
ECON 102	4 ECON 301	4 ECON 302	4
MATH 221	5 Communication B	4	
Literature Breadth	3 Biological Science Breadth	3	
Physical Science Breadth	3 Elective (Intermediate or Advanced level)	4	
	15	15	4

Second Year

Fall	Credits Spring	Credits Summer	Credits
ECON 310	4 ECON 400 or 410	4 Summer Internship (optional)	0
Core Econ Course or elective	3 Physical Science Breadth	3	
Ethnic Studies/ Humanities Breadth	4 Humanities Breadth	4	
Elective (Intermediate or Advanced level)	4 Intermediate or Advanced COMP SCI, MATH, or STAT (if BS) or Elective (Intermediate or Advanced level) (if BA)	4	
	15	15	0

Third Year

Fall	Credits Spring	Credits
Core econ Course	3 Electives (Intermediate or Advanced level)	12
Electives (Intermediate or Advanced level)	11	
	14	12

Total Credits 90

ADVISING AND CAREERS

ADVISING AND CAREERS ACADEMIC ADVISING

Academic advising (<https://econ.wisc.edu/undergraduate/find-academic-advising/>), along with general information about the undergraduate major and coursework, is available in Room 7238 of the Social Science Building.

PREPARATION FOR PHD PROGRAMS IN ECONOMICS

Students interested in pursuing graduate study should pursue Option B (mathematical emphasis) and augment the standard curriculum with higher-level mathematics and statistics courses. These may include:

Code	Title	Credits
MATH/STAT 309	Introduction to Probability and Mathematical Statistics I	
MATH/STAT 310	Introduction to Probability and Mathematical Statistics II	
MATH 421	The Theory of Single Variable Calculus	
MATH/STAT 431	Introduction to the Theory of Probability	
MATH 521	Analysis I	
MATH 522	Analysis II	
MATH/ISYE/OTM/STAT 632	Introduction to Stochastic Processes	

It is important to consult early in the second year with the undergraduate advisor and/or the faculty member who directs the undergraduate program to design a plan of coursework.

DIRECTED STUDY

Directed Study (ECON 698, ECON 699) enables advanced students to pursue economic topics not covered in the regular course offerings. A student interested in Directed Study should prepare a research proposal and/or reading list; specific course requirements are arranged with an instructor who agrees to supervise the directed study project. Enrollment requires the consent of the instructor; a GPA of 3.00 or above in ECON; completion of ECON 301 Intermediate Microeconomic Theory and ECON 302 Intermediate Macroeconomic Theory; at least one CORE ECON course.

Any undergraduate Economics student considering a Directed Study should meet with an Economics undergraduate academic advisor often for consultation.

INTERNSHIPS

Students can earn 1 credit for approved internships appropriate to the study of economics under course ECON 228 Internship Economics. Students must enroll for ECON 228 in the same semester/session in which the internship is granted. Students should work a minimum of 100 hours per term. Prerequisites are declaration in the Economics major; a major GPA of 2.200 or higher; completion of at least four ECON courses at UW-Madison; completion of at least one Intermediate Theory course (ECON 301 Intermediate Microeconomic Theory or ECON 302 Intermediate Macroeconomic Theory); and departmental approval.

SUCCESSWORKS

SuccessWorks (<https://successworks.wisc.edu/>) at the College of Letters & Science helps you turn the academic skills learned in your classes into a fulfilling life, guiding you every step of the way to securing jobs, internships, or admission to graduate school.

Through one-on-one career advising, events, and resources, you can explore career options, build valuable internship and research experience, and connect with supportive alumni and employers who open doors of opportunity.

- What you can do with your major (<https://successworks.wisc.edu/what-you-can-do-with-your-major/>) (Major Skills & Outcomes Sheets)
- Make a career advising appointment (<https://successworks.wisc.edu/make-an-appointment/>)
- Learn about internships and internship funding (<https://successworks.wisc.edu/finding-a-job-or-internship/>)
- Try “Jobs, Internships, & How to Get Them,” (<https://successworks.wisc.edu/canvas/>) an interactive guide in Canvas for enrolled UW–Madison students