

ECONOMETRICS & QUANTITATIVE ECONOMICS, BSLAS

for the degree of Bachelor of Science in Liberal Arts & Sciences Major in Econometrics & Quantitative Economics

Econometrics provides students with a quantitative curriculum consisting of economics (specifically in econometrics), statistics, mathematics, and computer science. Students will be trained in advanced data analysis skills to answer economic questions, uncovering relationships while taking all information into account. These skills are very important in the new world of large administrative data sets. The goal is to answer economic questions with the data by, for example, performing market analyses or drafting policy evaluations.

Students with this STEM-designated Bachelor of Science degree will find a variety of career paths available, and will be prepared for a variety of graduate programs. In particular, students trained in econometrics and quantitative economics possess empirical skills for working with large data sets across a variety of sectors including banking and finance, healthcare, and government.

Undergraduate Degree Programs in Economics

- Econometrics & Quantitative Economics, BSLAS (p. 1)
- Economics, BALAS (<http://catalog.illinois.edu/undergraduate/las/economics-balas/>)
- Computer Science & Economics, BSLAS (http://catalog.illinois.edu/undergraduate/eng_las/computer-science-economics-bslas/)

For further information, please visit the Economics undergraduate program page (<http://www.economics.illinois.edu/undergrad/info/>).

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Graduation Requirements

Minimum hours required for graduation: 120 hours.

Minimum hours required major and supporting course work: normally equates to 63-65 hours including a minimum of 30 hours of economics courses excluding ECON 199, ECON 220, ECON 398, and ECON 399. Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

University Requirements

Minimum of 40 hours of upper-division coursework, generally at the 300- or 400-level. These hours can be drawn from all elements of the degree. Students should consult their academic advisor for additional guidance in fulfilling this requirement.

The university and residency requirements can be found in the Student Code (<https://studentcode.illinois.edu/article3/part8/3-801/>) (§ 3-801) and in the Academic Catalog (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

General Education Requirements

Follows the campus General Education (Gen Ed) requirements (<https://courses.illinois.edu/gened/DEFAULT/DEFAULT/>). Some Gen Ed requirements may be met by courses required and/or electives in the program.

Code	Title	Hours
	Composition I	4-6
	Advanced Composition	3
	Humanities & the Arts (6 hours)	6
	Natural Sciences & Technology (6 hours)	6
	Social & Behavioral Sciences (6 hours)	6
	fulfilled by ECON 102 and ECON 103	
	Cultural Studies: Non-Western Cultures (1 course)	3
	Cultural Studies: US Minority Cultures (1 course)	3
	Cultural Studies: Western/Comparative Cultures (1 course)	3
	Quantitative Reasoning (2 courses, at least one course must be Quantitative Reasoning I)	6-10
	fulfilled by ECON 202, MATH 220 or 221, MATH 231, CS 105	
	Language Requirement (Completion of the fourth semester or equivalent of a language other than English, or completion of the third semester in two different languages other than English is required)	0-20

Major Requirements

Code	Title	Hours
Economics Courses including:		30
ECON 102	Microeconomic Principles	3
ECON 103	Macroeconomic Principles	3
ECON 198	Economics at Illinois	1
ECON 202	Economic Statistics I	3
ECON 203	Economic Statistics II	3
ECON 302	Inter Microeconomic Theory	3
ECON 303	Inter Macroeconomic Theory	3
11 additional hours of economics at the 300- or 400-level ¹		
12 hours of economics at the 400-level chosen from a set of courses on econometrics, quantitative economics, computational economics, and mathematical economics.		12
Mathematics, Statistics, and Computer Science Courses including:		15-16
MATH 220	Calculus	5
or MATH 221	Calculus I	
MATH 231	Calculus II	3
MATH 225	Introductory Matrix Theory	2
Statistics		3
STAT 385	Statistics Programming Methods	
CS 105	Intro Computing: Non-Tech (or CS 101 or CS 125)	3

Supporting course work 6

Six hours of courses outside of economics but related to econometrics, quantitative economics, computational economics, or mathematical economics. This would include additional courses in mathematics, statistics, or computer science.

Total Hours 63-65¹ Excluding ECON 398 and ECON 399.

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a fourth level of a language other than English. See the corresponding section on the Degree and General Education Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

First Year

First Semester	Hours
Free Elective course	1
ECON 102 or 103	3
MATH 220 or 221	4
Composition I or General Education course	4
Language Other Than English (3rd level)	4
Total Hours	16

Total Hours 16**First Year**

Second Semester	Hours
ECON 202	3
ECON 103 or 102	3
MATH 231	3
General Education course or Composition I	3
Language Other Than English (4th level)	4
Total Hours	16

Total Hours 16**Second Year**

First Semester	Hours
ECON 203	3
ECON 302	3

CS 105, 125, or 101	3
General Education course	3
General Education course	3
Total Hours	15

Total Hours 15**Second Year**

Second Semester	Hours
ECON 198	1
ECON 303	3
STAT 385	3
Supporting Coursework	3
General Education course	3
Free Elective course	2
Total Hours	15

Total Hours 15**Third Year**

First Semester	Hours
ECON 300-400 level course	3
ECON 300-400 level course	3
Supporting Coursework	3
MATH 225	2
General Education course	3
Total Hours	14

Total Hours 14**Third Year**

Second Semester	Hours
ECON 300-400 level course	3
ECON 300-400 level course	2
General Education course	3
General Education course	3
Free Elective course	3
Total Hours	14

Total Hours 14**Fourth Year**

First Semester	Hours
ECON 400-level course	3
ECON 400-level course	3
General Education course	3
Free Elective course	3
Free Elective course	3
Total Hours	15

Total Hours 15**Fourth Year**

Second Semester	Hours
ECON 400-level course	3
ECON 400-level course	3
Free Elective course	3
Free Elective course	3

Free Elective course	3
	15

Total Hours 15

Total Hours: 120

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To accomplish the educational objectives and to fulfill accreditation criteria, all economics programs provide the knowledge, experience, and opportunities necessary for students to demonstrate their attainment of the following outcomes:

- **Analytical Skills/Problem-Solving:** ECON students will effectively visualize, conceptualize, articulate, and solve complex problems or address problems that do not have a clear answer, with available information, through experimentation and observation, using microeconomic and macroeconomic theory, as well as calculus and statistical tools.
- **Critical Thinking:** ECON students will apply economic analysis to everyday problems helping them to understand events, evaluate specific policy proposals, compare arguments with different conclusions to a specific issue or problem, and assess the role played by assumptions in arguments that reach different conclusions to a specific economic or policy problem.
- **Quantitative Reasoning:** ECON students will understand how to apply empirical evidence to economic arguments. Specifically, they may obtain and/or collect relevant data, develop empirical evidence using appropriate statistical techniques, and interpret the results of such analyses.
- **Specialized Knowledge and Practical Application:** ECON students will develop deeper analytical, critical, and quantitative skills in specialized areas by applying economic concepts to real world situations.
- **Interdisciplinary Knowledge, Diverse Issues, and Global Consciousness:** ECON students will broaden their global and disciplinary knowledge, enhancing their understanding of the world around them both within economics and beyond.
- **Communication and Leadership:** ECON students will build skills to work as part of a team and lead others, ensuring they are prepared to navigate diverse audiences and situations.

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Department of Economics website (<https://economics.illinois.edu/>)
 Economics faculty (<https://economics.illinois.edu/directory/faculty/>)
 Economics advising (<https://economics.illinois.edu/academics/undergraduate-program/academic-advising/>)

Overview of College Admissions & Requirements: Liberal Arts & Sciences (<http://catalog.illinois.edu/schools/las/academic-units/>)

College of Liberal Arts and Sciences website (<https://las.illinois.edu/>)