

# ECONOMICS

## Overview

[www.econ.iastate.edu](http://www.econ.iastate.edu) (<http://www.econ.iastate.edu>)

Economics teaches the ability to reason clearly and to address complex issues using tools and decision-making models from economics, mathematics, and statistics, as well as concepts from the biological, physical, and social sciences. The study of economics also helps students to: develop an understanding of the interactions of technology, human activity, and the environment; apply systematic approaches to making optimal choices; analyze quantitative information; and communicate concepts and findings to industry professionals, organizations, governments, and the general public.

Strong training in economic reasoning serves as a foundation for a variety of rewarding careers and for advanced study in a range of professional and academic fields. Economics majors are provided the tools of critical analysis and human relations skills that are essential for being informed citizens, finding and excelling in many career fields, and becoming lifelong learners.

In addition to the Economics major, the Department of Economics offers degrees in Business Economics (<http://catalog.iastate.edu/previouscatalogs/2023-2024/collegeofbusiness/businesseconomics/>) and Agricultural Business (<http://catalog.iastate.edu/previouscatalogs/2023-2024/collegeofagricultureandlifesciences/agriculturalbusiness/>).

## Student Learning Outcomes

Graduates from the Department of Economics at Iowa State University are expected to be able to:

1. Understand and apply concepts of scarcity, marginal analysis, opportunity cost and comparative advantage.
2. Critically analyze the efficiency and equity implications of market and non-market processes of allocation.
3. Evaluate policies, regulations, and business strategies using economic models and theories.
4. Use quantitative and qualitative information to evaluate economic questions.
5. Understand the determinants of differences in economic performance over time and across space.

## Degree Requirements

### Economics Major, College of Liberal Arts and Sciences

The Economics major in the College of Liberal Arts and Sciences prepares students for advanced studies in Economics, Finance, and

Analytics, for professional degrees such as medicine, law and business administration (MBA), and for careers in finance, business and economic research, management, insurance, brokerage, real estate, labor relations, international development, and government service. Candidates for the Bachelor of Science degree with a major in Economics must fulfill requirements established by the College of Liberal Arts and Sciences. For details of undergraduate curricula in liberal arts and sciences, see College of Liberal Arts and Sciences (<http://catalog.iastate.edu/previouscatalogs/2023-2024/collegeofliberalartsandsciences/#lascollegerequirementstext>). A double major in Economics and Agricultural Business is permitted. A double major in Economics and Business Economics is not permitted. A major in Business Economics with a minor in Economics is not permitted. A minor in Economics cannot be combined with a major in Agricultural Business, and minors in both Agricultural Business and Economics are not permitted.

Students majoring in Economics are required to take the following courses within the General Education Area of Mathematics:

Choose one of the following pairs: 7-8

MATH 160 & ECON 207	Survey of Calculus and Applied Economic Optimization
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MATH 165 & ECON 207	Calculus I and Applied Economic Optimization *
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MATH 165 & MATH 166	Calculus I and Calculus II
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Choose one of the following pairs: 6

STAT 226 & STAT 326	Introduction to Business Statistics I and Introduction to Business Statistics II
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STAT 341 & STAT 342	Introduction to the Theory of Probability and Statistics I and Introduction to the Theory of Probability and Statistics II
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Students planning to attend graduate programs in Economics or related fields are encouraged to take MATH 165 Calculus I, MATH 166 Calculus II, STAT 341 Introduction to the Theory of Probability and Statistics I, and STAT 342 Introduction to the Theory of Probability and Statistics II.

Students planning for careers in the finance industry or government sectors are encouraged to enroll in STAT 226 Introduction to Business Statistics I and STAT 326 Introduction to Business Statistics II.

Students must complete the following courses in economics:

ECON 101	Principles of Microeconomics	3
ECON 102	Principles of Macroeconomics	3
ECON 301	Intermediate Microeconomics	3-4
ECON 302	Intermediate Macroeconomics	3

ECON 371	Introductory Econometrics	4
Three credits of ECON 230-239, 300-389, 400-489 courses.		3
Nine credits of 400-489 level ECON courses.		9
ECON 492	Graduating Senior Survey	R

A minimum of 18 credits of economics coursework must be earned at Iowa State University. Economics majors must earn a minimum GPA of 2.0 across ECON 101 Principles of Microeconomics, ECON 102 Principles of Macroeconomics, ECON 301 Intermediate Microeconomics, and ECON 302 Intermediate Macroeconomics, with no grade in these lower than a C-.

Communication Proficiency Requirement: According to the University-wide Communication Proficiency Grade Requirement, students must demonstrate their communication proficiency by earning a grade of C or better in ENGL 250. In addition the Economics major requires a grade of C or better in ENGL 302 or ENGL 314.

ENGL 150	Critical Thinking and Communication	3
ENGL 250	Written, Oral, Visual, and Electronic Composition	3
or ENGL 250H	Written, Oral, Visual, and Electronic Composition: Honors	
ENGL 302	Business Communication	3
or ENGL 314	Technical Communication	

Students in all ISU majors must complete a three-credit course in both U.S. Diversity and in International Perspectives. The two courses may simultaneously meet the following graduation requirements: Social Science, Arts/Humanities, ECON 400-489, or Econ courses from approved list. Please discuss with your advisor.

LAS majors require a minimum of 120 credits, **including a minimum of 45 credits at the 300/400 level**. Three of the required 45 credits at the 300+ level must be earned in a general education group outside the group of your major. Economics majors must meet or complete the LAS world language requirement and career proficiency requirement.

As majors in the College of Liberal Arts and Sciences, Economics students must meet College of Liberal Arts and Sciences (<http://catalog.iastate.edu/previouscatalogs/2023-2024/collegeofliberalartsandsciences/#lascollegerequirementstext>) and University-wide requirements (<http://catalog.iastate.edu/previouscatalogs/2023-2024/collegescurricula/>) for graduation in addition to those stated above for the major.

## Four Year Plan

### Bachelor of Science in Economics

#### Freshman

Fall	Credits Spring	Credits
ECON 101	3 ECON 102	3
ENGL 150	3 ECON 207 <sup>a</sup>	3
LIB 160	1 Arts and Humanities	3
MATH 160 <sup>a</sup>	4 Natural Science	3
Arts and Humanites	3 Social Science	3
<b>14</b>		<b>15</b>

#### Sophomore

Fall	Credits Spring	Credits
ECON 301	4 ECON 302	3
ENGL 250	3 STAT 326 <sup>b</sup>	3
STAT 226 <sup>b</sup>	3 Elective or World Language	4
LAS 203	1 Social Science	3
Elective or World Language	4 Natural Science	3
<b>15</b>		<b>16</b>

#### Junior

Fall	Credits Spring	Credits
ECON 371	4 ECON 400-489	3
ECON 230-239, 300-389, or 400-489	3 Electives	9
Arts and Humanities	3 International or Diversity	3
Elective	2	
International or Diversity	3	
<b>15</b>		<b>15</b>

#### Senior

Fall	Credits Spring	Credits
ECON 400-489	3 ECON 400-489	3
ENGL 302 or 314	3 ECON 492	R
Arts and Humanities	3 Natural Science	2
Electives	6 Electives	10
<b>15</b>		<b>15</b>

#### Total Credits: 120

Students in all ISU majors must complete a three-credit course in both U.S. Diversity and in International Perspectives. The two courses may simultaneously meet the following graduation requirements: Social Science, Arts/Humanities, ECON 400-489, or Econ courses from approved list. Please discuss with our advisor.

LAS majors require a minimum of 120 credits, **including a minimum of 45 credits at the 300/400 level**. Three of the required 45 credits at the

300+ level must be earned in a general education group outside the group of your major. Econ majors must meet or complete the LAS world language requirement. In addition, Econ majors must earn a minimum of 18 credits from courses taught by the Department of Economics at ISU.

- a MATH 165 (Calculus I) and MATH 166 (Calculus II) may be substituted for MATH 160 and ECON 207.
- b STAT 341 (Introduction to Theory of Probability & Stats I) and STAT 342 (Introduction to Theory of Probability & Stats II) may be substituted for STAT 226 and 326.

## Minor

### Economics Minor, College of Liberal Arts and Sciences

For a minor in Economics, students complete a minimum of 15 credits. The minor must include at least 9 credits that are not used to meet any other Department, College, or University requirement.

ECON 101	Principles of Microeconomics	3
ECON 102	Principles of Macroeconomics	3
ECON 301	Intermediate Microeconomics *	3-4
Three credits of ECON 230-239, 300-389, 400-489 courses.		3
Three credits of ECON 300-389, 400-489 courses.		3
<b>Total Credits</b>		<b>15-16</b>

\* Pre-reqs for ECON 301 include MATH 166 Calculus II or ECON 207 Applied Economic Optimization.

The Department of Economics has concurrent Bachelor of Science/ Master of Science (BS/MS) programs designed especially for seniors who wish to pursue advanced studies. Concurrent BS/MS programs are: economics (BS) with economics (MS) or agricultural economics (MS). The concurrent BS/MS program allows seniors to complete an MS degree within 12 months of BS completion.

For more information about our concurrent undergraduate and graduate programs in Economics, visit: <https://www.econ.iastate.edu/iowa-state-ms-econ-programs> (<https://www.econ.iastate.edu/iowa-state-ms-econ-programs/>)

## Graduate Programs

### Graduate Programs in Economics and Agricultural Economics

The Department of Economics offers work toward the degrees Master of Science and Doctor of Philosophy with majors in Economics and Agricultural Economics. The Department also offers minors to students with majors in other departments. For more information, visit our web site at [www.econ.iastate.edu](http://www.econ.iastate.edu) (<http://www.econ.iastate.edu>).

Students do not need to have an undergraduate major in Economics or Agricultural Economics to qualify for graduate work in the Department. However, students must have completed undergraduate coursework in macroeconomics, microeconomics, statistics, calculus, and matrix algebra. Some background in math courses emphasizing logic and proofs is preferred, particularly for the Ph.D.

Candidates for the degree Master of Science (thesis option) are required to complete satisfactorily 30 credits of acceptable graduate work, including preparation of a thesis.

Candidates for the degree Master of Science (non-thesis option) may fulfill requirements by satisfactorily completing 32 credits of acceptable graduate work, including preparation of a creative component.

Programs of study for the doctorate are organized by each student in consultation with the major professor and the student's committee. Subject to staffing constraints, the Department offers coursework to support the following fields of concentration: agricultural economics, applied econometrics, environmental and resource economics, financial economics, human resources, industrial organization, international economics, and macroeconomics. Students must complete advanced courses in microeconomic and macroeconomic theory, quantitative methods and econometrics, and two fields from the list above. Students are required to participate in workshops and demonstrate competence in theory by passing qualifying examinations.