

# Economics, BS

The BS in economics incorporates a balance of economic theory, mathematical tools, and field applications while emphasizing the development of analytical skills.

Students who major in economics complete three sets of requirements for the major: mathematics and statistics courses that provide the skills needed for understanding economic theory and data; economic theory courses that provide the tools needed for analyzing economic issues; and field courses that apply economic tools to business, social, or specialized analytical issues.

## Learning Outcomes

### Foundational Knowledge

Comprehension of fundamental principles and concepts of economics, including understanding of how markets work, supply and demand models, different economic systems, and macroeconomic variables such as GDP and inflation.

Graduates will be able to:

- evaluate economic choices made by households, firms, and governments, and examine policy issues in areas such as education, health, labor, the environment, and equity;
- describe the performance of economies and choose appropriate models to evaluate and propose policies for improving aggregate economic outcomes, including growth, equity, and stability;
- explain the function of markets and apply supply and demand models to analyze various market outcomes under different conditions; and
- define key macroeconomic variables such as GDP, inflation, unemployment, wages, money, and interest rates, and analyze the economic forces impacting these macroeconomic variables and the rest of the economy.

### Critical Thinking and Problem Solving

Ability to apply economic reasoning to real-world problems.

Graduates will be able to:

- use economic theories and models to analyze and interpret real-world economic issues;
- develop problem-solving skills to address economic questions and policy issues; and
- apply critical thinking to evaluate various problems, scenarios, and outcomes.

### New Discovery

Economic reasoning and knowledge formation for economic and policy analysis.

Graduates will be able to:

- formulate questions about economic processes based on current knowledge;
- construct a hypothesis to guide economic inquiry;
- design economic models, identify variables, and interpret results;
- find and interpret economic data; and
- analyze and evaluate economic results to inform a hypothesis.

## Quantitative Skills

Mathematical reasoning, basic numeracy, and econometrics. Graduates will have a strong emphasis on quantitative skills.

Graduates will be able to:

- understand and apply econometric methods to analyze economic data;
- evaluate policy and/or scholarly recommendations based on the findings;
- use economic reasoning to appraise the trade-offs raised by different sides of a policy debate;
- apply advanced quantitative methods and models in economic analysis.

## Information Literacy

Acquisition, analysis, and summary of published economic information.

Graduates will be able to:

- locate and critically evaluate the relevance and credibility of information from electronic and print sources;
- identify reliable sources of information;
- cite reliable sources of information appropriately;
- identify questions addressed and methodologies used; and
- assess findings reported and conclusions drawn in published economic articles.

## Communication Proficiency

Written and visual presentation of economic information.

Graduates will be prepared with written communication skills and visual communication skills.

Graduates will be able to:

- write accessible and concise reports based on economic findings or literature searches;
- effectively communicate complex economic concepts and findings in written, oral, and visual form;
- construct visual presentations of results or findings from the economic literature, using appropriate visual aids such as graphs, charts, and diagrams; and
- orally present findings or results with appropriate media in an accessible manner.

## Requirements

The Bachelor of Science with a major in economics requires a minimum of 120 s.h. of coursework, including 41–44 s.h. of coursework for the major. To graduate, students must have a cumulative grade-point average of at least 2.00 in all college coursework attempted, all coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. Coursework in the major may not be taken pass/nonpass. Students complete the College of Liberal Arts and Sciences GE CLAS Core.

Students may be able to count a limited amount of transfer credit toward the economics major, but they are required to complete the following courses at the University of Iowa: ECON:3125 Intermediate Microeconomics: Advanced and ECON:3150 Intermediate Macroeconomics, and two of the applied field courses.

The major requires courses in mathematics and statistics, economic theory, and in applied field courses. Students should

pay close attention to the order in which they take courses, since some courses are prerequisites for others.

The BS program is ideal for students who plan to pursue a technical career in the public or private sector, a graduate degree in economics, or a law degree.

The Department of Economics offers ECON:3050 Professional Preparation in Economics. This is not a required course to complete the BS with a major in economics; however, it is highly recommended for economics students as it prepares them for internships and future academic and professional career paths.

The BS with a major in economics requires the following coursework.

Requirements	Hours
Mathematics and Statistics Courses	15-18
Economic Theory Courses	14
Applied Field Courses	12

## Mathematics and Statistics Courses

The department recommends that students planning to pursue a graduate degree in economics take STAT:3100 Introduction to Mathematical Statistics I and STAT:3101 Introduction to Mathematical Statistics II rather than STAT:3120 Probability and Statistics. It also recommends that they complete additional coursework in mathematics, including MATH:2700 Introduction to Linear Algebra, MATH:2850 Calculus III, and MATH:3770 Foundations of Analysis.

Course #	Title	Hours
All of these:		
MATH:1850 & MATH:1860	Calculus I-II	8
ECON:4800	Econometric Analysis: Advanced Causal Inference With Data	3
One of these:		
STAT:3100-STAT:3101	Introduction to Mathematical Statistics I-II (both courses required)	7
STAT:3120	Probability and Statistics	4

## Economic Theory Courses

Course #	Title	Hours
All of these (ECON:3125 and ECON:3150 must be taken at the University of Iowa):		
ECON:1100	Principles of Microeconomics	4
ECON:1200	Principles of Macroeconomics	4
ECON:3125	Intermediate Microeconomics: Advanced	3
ECON:3150	Intermediate Macroeconomics	3

## Applied Field Courses

Students complete four applied field courses (12 s.h.) selected from economics courses (prefix ECON) numbered 3325-4700, excluding ECON:3870 Federal Reserve Challenge and ECON:4050 Readings and Independent Study in Economics. At least two courses must be numbered between 4090-4700

and at least two of the applied field courses must be taken at the University of Iowa. Students are not guaranteed specific applied field courses. The availability of courses may be subject to prerequisites or restrictions.

## Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.

## Honors

### Honors in the Major

Graduation with honors in economics recognizes high scholastic achievement based on grades and on completion of academic work beyond the requirements of the economics major. Students must have a cumulative grade-point average of at least 3.50 in all college coursework attempted, all coursework attempted at the University of Iowa, all college economics coursework attempted, and all economics coursework attempted at the University of Iowa. They must also successfully complete an honors thesis under the supervision of a faculty member.

Students begin by completing BUS:1999 Introduction to Research in Business at least three semesters prior to graduation. This course introduces students to research in the college and provides an opportunity to develop thesis questions and meet Tippie College of Business faculty members engaged in research. They must also complete ECON:3125 Intermediate Microeconomics: Advanced, ECON:3150 Intermediate Macroeconomics, and ECON:4800 Econometric Analysis: Advanced Causal Inference With Data before commencing thesis work.

After identifying a faculty member to advise them on their thesis and completing the coursework listed, students register for ECON:4999 Honors Thesis in Economics for two semesters while they complete their research and write their thesis. In the second semester of their thesis, students present their research in a poster format at the Undergraduate Research Festival.

Students interested in graduating with honors in economics should visit the department's honors advisor at least three semesters prior to graduation.

## University of Iowa Honors Program

Completing the economics honors requirements also satisfies the experiential learning requirement for the University of Iowa Honors Program. To learn more about graduating with honors through the UI Honors Program, visit the Honors at Iowa website.

Membership in the UI Honors Program is not required to earn honors in the economics major.

## Career Advancement

The Bachelor of Science degree provides an excellent educational background for a variety of positions in business and government, research institutes and organizations, as well as academia. Graduates find employment in research, consulting, banking, financial institutions, industrial firms, and trade organizations and in federal, state, and local government agencies dealing with economic policy, regulation, and policy analysis. An undergraduate BS degree in economics also prepares students for the study of law and for graduate study in fields such as economics, public policy, business management, public administration, hospital and health administration, urban and regional planning, transportation, journalism, political science, and statistics.

Over 90% of students reported that they found permanent employment, were accepted to graduate school, or were not seeking employment within six months of graduation.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs. For more information about careers, visit the Pomerantz Career Center website.

## Academic Plans

### Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan.

**Before the third semester begins:** at least one-quarter of the semester hours required for graduation.

**Before the fourth semester begins:** MATH:1850 Calculus I.

**Before the fifth semester begins:** MATH:1860 Calculus II and at least half of the semester hours required for graduation.

**Before the sixth semester begins:** STAT:3100 Introduction to Mathematical Statistics I (if chosen statistics course).

**Before the seventh semester begins:** ECON:1100 Principles of Microeconomics, ECON:1200 Principles of Macroeconomics, ECON:3125 Intermediate Microeconomics: Advanced, ECON:3150 Intermediate Macroeconomics, STAT:3101 Introduction to Mathematical Statistics II (if chosen statistics course), and at least three-quarters of the semester hours required for graduation.

**Before the eighth semester begins:** STAT:3120 Probability and Statistics (if chosen statistics course) and at least two applied field courses.

**During the eighth semester:** ECON:4800 Econometric Analysis: Advanced Causal Inference With Data, all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

### Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

### Economics, BS

This sample plan is currently being reviewed and will be added at a later date.