Agricultural Business

The Department of Economics offers coursework for a Bachelor of Science degree in Agricultural Business. The major in Agricultural Business prepares students for advanced studies (e.g., Masters or Ph.D. in Agricultural Economics, Law School, MBA, etc) and for careers in agricultural finance, management in agricultural supply and marketing industries, commodity merchandising and research, business research and management, farm and ranch operations, commercial farm management and appraisal, agricultural sales and marketing, agricultural reporting and public relations, agricultural extension, international activities, and government service. A minor in Agricultural Business is also possible.

Students majoring in Agricultural Business often choose elective coursework leading to minors in the College of Agriculture and Life Sciences or the Ivy College of Business, or that emphasize specific areas within agricultural business such as finance, management, commodity analysis, research, agricultural sales and marketing, environmental economics, farm and ranch operations, international economics, agricultural extension, or government service. A major in Agricultural Business with a minor in Economics is not permitted; however, a double major in Agricultural Business and Economics is permitted.

Customization of the Agricultural Business major is possible. Students may request to pursue one of three Business Options in Finance, Marketing, or Supply Chain Management. Electing a Business Option does not change the overall requirements of the Agricultural Business major. Eligibility and coursework requirements for Business Options are maintained and approved by the Department of Economics and details are available on the department website.

Student Learning Outcomes
The Department of Economics at Iowa State University has general goals for its Bachelor of Science graduates. These goals are for students to be able to solve problems and think critically, engage in economic reasoning, demonstrate leadership skills, communicate effectively, make ethical decisions, understand the environmental impacts of human activities, meet the challenges of living and working in a culturally diverse and global community, develop a capacity for innovation and creativity, and value the importance of life-long learning. Regarding each of these general goals, there are more specific additional goals, namely:

1. Problem Solving/Critical Thinking:
   a. Distinguish factual statements from opinions or value judgments.
   b. Summarize, analyze, and interpret research data and policy issues.
   c. Distinguish causal relationships from correlations.
   d. Determine the accuracy of statements.
   e. Understand the usefulness of abstractions and models.
   f. Identify assumptions and detect bias.
   g. Critically evaluate their arguments and those of others.
   h. Distinguish relevant information from irrelevant information.
   i. Establish priorities.
   j. Apply a holistic approach to solving complex, issue-laden, problems.

2. Economic Reasoning:
   a. Distinguish positive (‘what is’) from normative (‘what should be’) economics.
   b. Determine the opportunity cost of alternatives.
   c. Apply the concepts of comparative advantage, specialization, and exchange to analyze resource allocation issues.
   d. Identify the conditions under which markets allocate resources efficiently or markets fail.
   e. Apply marginal economic analysis to solve problems.
   f. Conduct comparative static analyses.
   g. Pose and test hypotheses.
   h. Use scientific methods to identify optimal choices among economic alternatives.
   i. Identify decision-makers, objectives, choice variables, incentives, and constraints.
   j. Understand how conclusions depend on assumptions.

3. Leadership:
   a. Organize, facilitate, and participate effectively in a group, team, or organization.
   b. Define a problem or opportunity, implement an action planning process, work toward a goal and justify actions taken.

4. Professional, Interpersonal and Cross-cultural Communications:
   a. Communicate economic and business concepts to professionals, organizations, governments, and the general public.
   b. Obtain information by accessing electronic or traditional media, listening, or by observation.
   c. Read, listen, observe and reflect.
   d. Speak and write clearly and persuasively.
   e. Prepare and present effective visual, oral, written, and electronic presentations.

5. Ethics:
   a. Define and assess their ethical perspectives, sense of moral responsibility, and values.
   b. Identify and critically evaluate contemporary ethical and moral issues in professional and private life.

6. Environmental Awareness:
   a. Explain the physical and biological interactions within ecosystems.
   b. Explain how human activities impact the environment and how societies are affected by environmental change.

7. International/Multi-Cultural Awareness:
U.S. Diversity – Students should achieve two of the following outcomes:

a. Articulate how their personal life experiences and choices fit within the context of the larger mosaic of U.S. society, indicating how they have confronted and critically analyzed their perceptions and assumptions about diversity-related issues.

b. Analyze and evaluate the contributions of various underrepresented social groups in shaping the history and culture of the U.S.

c. Analyze individual and institutional forms of discrimination based on factors such as race, ethnicity, gender, religion, sexual orientation, class, etc.

d. Analyze how cultural diversity and cooperation among social groups affect U.S. society.

International Perspectives – Students should achieve two of the following outcomes:

a. Analyze the accuracy and relevancy of their own worldviews and anticipate how people from other nations may perceive that worldview.

b. Describe and analyze how cultures and societies around the world are formed, are sustained, and evolve.

c. Analyze and evaluate the influence of global issues in their own lives.

d. Describe the values and perspectives of cultures other than their own and discuss how the influence individuals’ perceptions of global issues or events.

e. Communicate competently in a second language.

8. Entrepreneurship:

a. Demonstrate innovation and creativity regardless of context.

b. Identify and pursue opportunities that produce value.

c. Be persistent in shepherding necessary resources and managing associated risk to facilitate change.

9. Life-long Learning:

a. Articulate how continued learning after graduation will enrich their lives.

b. Identify and participate in new areas for learning beyond the classroom and after graduation.

Curriculum in Agricultural Business

The major in Agricultural Business requires a minimum of 120 credits and a 2.00 minimum GPA. Only 65 credits from a two-year institution may apply, which may include up to 16 technical credits. In addition, at most 9 P-NP credits of free electives can be applied toward the degree, and a minimum of 18 credits must be earned from courses taught by the Department of Economics at ISU.

International Perspective (http://www.registrar.iastate.edu/students/div-ip-guide/IntlPerspectives-current/): 3 cr.

3 cr. from approved list.

U.S. Diversity (http://www.registrar.iastate.edu/students/div-ip-guide/usdiversity-courses/): 3 cr.

3 cr. from approved list.

Communication/Library: 13 cr.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 150</td>
<td>Critical Thinking and Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 250</td>
<td>Written, Oral, Visual, and Electronic Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 302</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 309</td>
<td>Proposal and Report Writing</td>
<td></td>
</tr>
<tr>
<td>ENGL 314</td>
<td>Technical Communication</td>
<td></td>
</tr>
<tr>
<td>SP CM 212</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

Communication Proficiency Requirement: A grade of C or better in ENGL 250, a C or better in either ENGL 150 or (ENGL 302 or ENGL 309 or ENGL 314), and a C or better in the speech fundamentals course (SP CM 212 or AGEDS 311).

Total Credits 13

Humanities and Social Sciences: 6 cr.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 102</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

Three credits from approved course list.

Total Credits 6

Ethics: 3 cr.

3 cr. from approved list.

Life Sciences: 6 cr.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101</td>
<td>Introductory Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 211</td>
<td>Principles of Biology I</td>
<td></td>
</tr>
</tbody>
</table>

Three credits from approved course list.

Total Credits 6

Mathematics: 10-11 cr.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 160</td>
<td>Survey of Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 165</td>
<td>Calculus I</td>
<td></td>
</tr>
</tbody>
</table>

One of the following: 3-4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 207</td>
<td>Applied Economic Optimization</td>
<td></td>
</tr>
<tr>
<td>MATH 166</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>STAT 226</td>
<td>Introduction to Business Statistics I</td>
<td>3</td>
</tr>
</tbody>
</table>

International Perspective (http://www.registrar.iastate.edu/students/div-ip-guide/IntlPerspectives-current/): 3 cr.

3 cr. from approved list.
Physical Sciences: 5 cr.
5 credits from approved course list.

Total Credits 5

Agricultural, Food, or Natural Resources Sciences: 6 cr.
6 cr. from approved list.

General Economics: 9-10 cr.
ECON 101 Principles of Microeconomics 3
ECON 301 Intermediate Microeconomics 3-4
One of the following: 3
  ECON 302 Intermediate Macroeconomics
  ECON 353 Money, Banking, and Financial Institutions
ECON 492 Graduating Senior Survey R

Total Credits 9-10

Business and Agricultural Business: 32 cr.
ACCT 284 Financial Accounting 3
FIN 301 Principles of Finance 3
Six credits from ACCT 285 or any 300-489 ACCT, FIN, MKT, MGMT, MIS, or SCM courses. 6
ECON 110 Orientation in Agricultural Business 1
ECON 235 Introduction to Agricultural Markets 3
ECON 292 Career Seminar 1
Three credits from STAT 326 or DS 201 3
Nine credits of ECON 230-289, 300-389, 400-489 courses. 9
Three credits of 400-489 level ECON courses. 3

Total Credits 32

Electives: 22-24 cr.
Agricultural Business majors seeking a double major in Economics must take an additional 9 credits of economics courses beyond those required for the Economics major for a total of 47 credits in economics, and must earn a minimum GPA of 2.0 across ECON 101 (http://catalog.iastate.edu/collegeofliberalartsandsciences/economics/) Principles of Microeconomics, ECON 102 (http://catalog.iastate.edu/collegeofliberalartsandsciences/economics/) Principles of Macroeconomics, ECON 301 (http://catalog.iastate.edu/collegeofliberalartsandsciences/economics/) Intermediate Microeconomics, and ECON 302 (http://catalog.iastate.edu/collegeofliberalartsandsciences/economics/) Intermediate Macroeconomics, with no grade in these lower than a C#.

Bachelor of Science, Agricultural Business

Freshman

Fall Credits Spring Credits
ECON 110 1 ECON 102 3
ECON 101 3 ECON 235 3

Sophomore

Fall Credits Spring Credits
ECON 101L 1 BIOL 101 or 211 3
ENGL 150 3 ECON 207 or MATH 166 3-4
LIB 160 1 Ag Science or Humanities 3
MATH 160 or 165 4
Ag Science or Humanities 3

Total Credits 16 15-16

Junior

Fall Credits Spring Credits
Business elective a 3 ECON 230-289, 300-389, or 400-489 3
ECON 230-289, 300-389, or 400-489 6 FIN 301 3
SP CM 212 or AGEDS 311 3 International or Diversity 3
Ethics 3 ECON 302 or 353 3
Elective 3

Total Credits 15 15

Senior

Fall Credits Spring Credits
Business elective a 3 ECON 400-489 3
ENGL 302, 309, or 314 3 ECON 492 R
Electives 9 Electives 12

Total Credits 15 15

a. Select six credits from ACCT 285 or any 300-489 ACCT, FIN, MKT, MGMT, MIS, or SCM courses.

b. Students majoring in Economics or adding the Finance Business Option must take STAT 326. Students must take at least 1 STAT course from Iowa State for graduation.

Agricultural Business Minor

The Department of Economics offers a minor in Agricultural Business. The minor requires at least 15 credits, including 6 credits in courses numbered 300 or above taken at Iowa State University. The minor must include at least 9 credits that are not used to meet any other requirements.
Department, College, or University requirement. Courses to be included in the minimum of 15 credits include the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 101</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 230</td>
<td>Farm Business Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 235</td>
<td>Introduction to Agricultural Markets</td>
<td>3</td>
</tr>
<tr>
<td>ECON 301</td>
<td>Intermediate Microeconomics</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Three credits of ECON courses from: 230-289, 300-389, 400-489 courses.

See Master of Science or Ph.D. in Agricultural Economics.