AGRICULTURAL AND LIFE SCIENCES EDUCATION

OVERVIEW

Administered by the Department of Agricultural Education and Studies

For undergraduate curricula in agricultural and life sciences education, and agricultural studies, leading to the degree of bachelor of science, see College of Agriculture and Life Sciences, Curricula. (http://catalog.iastate.edu/previouscatalogs/2023-2024/collegeofagricultureandlifesciences/)

The department offers two curricula for students desiring to enter careers in agriculture and related fields. These curricula are agricultural and life sciences education and agricultural studies. The agricultural and life sciences education curriculum prepares persons for careers as agricultural education instructors, and educational specialists for industry, nonprofit organizations, and governmental agencies. The agricultural studies curriculum has two options, production and management and multidisciplinary. Graduates are prepared for careers in production agriculture and agricultural industry. Graduates of both curricula accept positions in agricultural business, industry, agencies, and production agriculture.

Student Learning Outcomes

Graduates will have a broad base of agricultural knowledge, and will be skilled in decision-making, planning, organizing, presenting, and evaluating information. Through the successful completion of the required coursework, active participation in clubs and organizations, and the acquisition of technical skills and experiences associated with work experiences, internships, and international travel, graduates of our baccalaureate programs meet the university, college, and departmental outcomes in the following nine areas:

1. professional, interpersonal, and cross-cultural communications
2. problem solving and critical thinking
3. leadership
4. entrepreneurship
5. life-long learning
6. ethics
7. environmental awareness
8. U.S. diversity
9. international perspectives.

More information regarding the departmental learning outcomes can be found at www.ageds.iastate.edu/. (http://www.ageds.iastate.edu/)

Curriculum in Agricultural and Life Sciences Education

Administered by the Department of Agricultural Education and Studies. Students majoring in Agricultural and Life Sciences Education may lead to teacher licensure.

Total Degree Requirement: 128 cr.

Only 65 cr. from a two-year institution may apply which may include up to 16 technical cr.; 9 P-NP cr. of free electives; 2.00 minimum GPA. Teacher certification requires 2.5 GPA at particular points in the program of study, and a minimum grade of C- in selected courses.

University Requirements:

ENGL 150	Critical Thinking and Communication	3
ENGL 250	Written, Oral, Visual, and Electronic Composition	3
International Perspectives		3
LIB 160	Introduction to College Level Research	1
US Diversity		3
Total Credits		**13**

CALS Requirements:
Communications Proficiency:

6 cr. of English composition with a C or better and 3 cr. of speech fundamentals with a C or better.

AGEDS 311	Presentation and Sales Strategies for Agricultural Audiences	3
American History Elective		3
BIOL 211	Principles of Biology I	3
BIOL 211L	Principles of Biology Laboratory I	1
BIOL 212	Principles of Biology II	3
BIOL 212L	Principles of Biology Laboratory II	1
CHEM 163	College Chemistry	4
CHEM 163L	Laboratory in College Chemistry	1
ECON 101	Principles of Microeconomics	3
Ethics Elective from Approved List		3
MATH 140	College Algebra	3
STAT 104	Introduction to Statistics	3

Major Specific Requirements - Agricultural Sciences and Economics (C- or higher required)

ACCT 284	Financial Accounting	3
Ag Elective From Approved List		3
AGEDS 315	Personal, Professional, and Entrepreneurial Leadership in Agriculture	3
AGEDS 488	Methods of Teaching Agricultural Mechanics	3
AGRON 181	Introduction to Crop Science	3

AGRON 182	Introduction to Soil Science	3
AN S 101	Working with Animals	2
AN S 114	Survey of the Animal Industry	2
HORT 221	Principles of Horticulture Science	3
ECON 230	Farm Business Management	3
NREM 120	Introduction to Renewable Resources	3
AGEDS 388	Agricultural Mechanics Applications	3
Total Credits		**34**

Major Specific Requirements - Professional Credits (C or higher required):

AGEDS 110	Professional Development in Agricultural Education and Studies: New Student Seminar	1
AGEDS 211A	High School Agriculture Programs	1
AGEDS 310	Foundations of Agricultural Education Programs	3
AGEDS 401	Planning Agriculture and Life Sciences Education Programs	3
AGEDS 402	Methods of Teaching in Agriculture and Life Sciences	3
AGEDS 416	Pre-Student Teaching Experience in Agricultural Education	1
AGEDS 417	Supervised Teaching in Agriculture and Life Sciences	1-16
EDUC 333	Educational Psychology	3
PSYCH 230	Developmental Psychology	3
SP ED 401	Teaching Secondary Students with Exceptionalities in General Education	3
Total Credits		**22-37**

Electives: Select courses to get to 128 credits.

Agricultural and Life Sciences Education, B.S.

Freshman

Fall	Credits	Spring	Credits
AGEDS 110	1	ENGL 250	3
AN S 114	2	ECON 101	3
AN S 101	2	AGRON 181	3
BIOL 211	3	BIOL 212	3
BIOL 211L	1	BIOL 212L	1
ENGL 150	3	Choose from Approved Ag Elective List	3
LIB 160	1		
MATH 140	3		
	16		**16**

Sophomore

Fall	Credits	Spring	Credits
CHEM 163	4	PSYCH 230	3
CHEM 163L	1	Ethics Elective	3
NREM 120	3	STAT 104	3
ACCT 284	3	American History Elective	3
AGEDS 310	3	AGEDS 211	1
AGEDS 388	3	HORT 221	3
	17		**16**

Junior

Fall	Credits	Spring	Credits
ECON 230	3	Intl Perspectives Elective	3
AGEDS 315	3	AGEDS 401	3
EDUC 333	3	Elective	6
AGEDS 488	3	AGRON 182	3
Elective	3		
	15		**15**

Senior

Fall	Credits	Spring	Credits
AGEDS 311	3	AGEDS 416	1
AGEDS 402	3	AGEDS 417	1-16
Elective	6		
SP ED 401	3		
US Diversity	3		
	18		**2-17**

Minor - Agricultural and Life Sciences Education

The department offers a minor in agricultural and life sciences education which may be earned by completion of a minimum of 15 credits in agricultural education and studies courses, with a minimum of two courses at the 400 level. The minor must include at least 9 credits that are not used to meet any other department, college, or university requirement. A minor will not meet state licensure requirements for teaching high school agriculture. Courses that can be taken for a minor are:

AGEDS 211	Early Field Based Experience	1
AGEDS 310	Foundations of Agricultural Education Programs	3
AGEDS 311	Presentation and Sales Strategies for Agricultural Audiences	3
AGEDS 312	Science With Practice	3
AGEDS 315	Personal, Professional, and Entrepreneurial Leadership in Agriculture	3
AGEDS 327	Survey of Agriculture and Life Sciences Communication	3

AGEDS 388	Agricultural Mechanics Applications	3
AGEDS 402	Methods of Teaching in Agriculture and Life Sciences	3
AGEDS 412	Internship in Agricultural Education and Studies	2-6
AGEDS 414	Developing Agricultural Education Programs in Non-Formal Settings	2
AGEDS 450	Farm Management and Operation	3
AGEDS 451	Agricultural Law	3
AGEDS 461	Innovation Diffusion and the Role of Agricultural and Extension Education	3
AGEDS 488	Methods of Teaching Agricultural Mechanics	3
AGEDS 490	Independent Study in Agricultural Education and Studies	1-3
AGEDS 496	Agricultural Travel Course	1-3
AGEDS 499	Undergraduate Research	arr †

† Arranged with instructor.

Visit the departmental website at www.AgEds.iastate.edu/. (http://www.AgEds.iastate.edu/.html)

Graduate Study

The department offers the degrees of master of science and doctor of philosophy, with a major in agricultural education; a specialization in agricultural extension education; opportunities for emphasis in international agricultural education; and a minor for students majoring in other curricula. Graduate students who have earned a bachelor's degree in an agricultural discipline may plan a course of study that leads to teacher certification. Candidates pursuing the master of science degree may do so by completing either a thesis or nonthesis program of study.

Students have an opportunity to develop competence in disciplinary foundations and ethics, program planning, learning theory, instructional methods, program leadership and administration, program evaluation, research methodologies, data analysis and interpretation, writing for publication, and grant proposal writing.

The department also cooperates in the international development studies option of the General Graduate Studies Program. Courses and workshops are offered, both on and off campus, for extension educators, teachers, and industry and government personnel.