AGRICULTURAL AND LIFE SCIENCES EDUCATION

OVERVIEW

Administered by the Department of Agricultural Education and Studies

For undergraduate curricula in agricultural and life sciences education, agricultural communications, and agricultural studies, leading to the degree of Bachelor of Science, see College of Agriculture and Life Sciences, Curricula. (http://catalog.iastate.edu/collegeofagricultureandlifesciences/)

The department offers three curricula for students desiring to enter careers in agriculture and related fields. These curricula are agricultural communication, agricultural and life sciences education and agricultural studies. The agricultural communication curriculum prepares graduates to communicate about agricultural science with diverse audiences within and outside the agricultural sector locally, nationally, and globally, using various communication channels and tools. 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 all three 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. cultures and communities
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 1500	Critical Thinking and Communication	3
ENGL 2500	Written, Oral, Visual, and Electronic Composition	3
International Perspectives		3
LIB 1600	Introduction to College Level Research	1
U.S. Cultures and Communities (formerly U.S. 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 3110	Presentation and Sales Strategies for Agricultural Audiences	3
American History Elective		3
BIOL 2110	Principles of Biology I	3
BIOL 2110L	Principles of Biology Laboratory I	1
BIOL 2120	Principles of Biology II	3
BIOL 2120L	Principles of Biology Laboratory II	1
CHEM 1630	College Chemistry	4
CHEM 1630L	Laboratory in College Chemistry	1
ECON 1010	Principles of Microeconomics	3
Ethics Elective from Approved List		3
MATH 1400	College Algebra	3
STAT 1040	Introduction to Statistics	3

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

ACCT 2840	Financial Accounting	3
Ag Elective From Approved List		3
AGEDS 3150	Personal, Professional, and Entrepreneurial Leadership in Agriculture	3

AGEDS 4880	Methods of Teaching Agricultural Mechanics	3
AGRON 1810	Introduction to Crop Science	3
AGRON 1820	Introduction to Soil Science	3
ANS 1010	Working with Animals	2
ANS 1140	Survey of the Animal Industry	2
HORT 2210	Principles of Horticulture Science	3
ECON 2300	Farm Business Management	3
NREM 1200	Introduction to Renewable Resources	3
AGEDS 3880	Agricultural Mechanics Applications	3
Total Credits		**34**

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

AGEDS 1100	Professional Development in Agricultural Education and Studies: New Student Seminar	1
AGEDS 2110A	High School Agriculture Programs	1
AGEDS 3100	Foundations of Agricultural Education Programs	3
AGEDS 4010	Planning Agriculture and Life Sciences Education Programs	3
AGEDS 4020	Methods of Teaching in Agriculture and Life Sciences	3
AGEDS 4160	Pre-Student Teaching Experience in Agricultural Education	1
AGEDS 4170	Supervised Teaching in Agriculture and Life Sciences	1-16
PSYCH 3330	Educational Psychology	3
PSYCH 2300	Developmental Psychology	3
SPED 4010	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 1100	1	ENGL 2500	3
ANS 1140	2	ECON 1010	3
ANS 1010	2	AGRON 1810	3
BIOL 2110	3	BIOL 2120	3
BIOL 2110L	1	BIOL 2120L	1
ENGL 1500	3	Choose from Approved Ag Elective List	3
LIB 1600	1		
MATH 1400	3		
	16		**16**

Sophomore

Fall	Credits	Spring	Credits
CHEM 1630	4	PSYCH 2300	3
CHEM 1630L	1	Ethics Elective	3
NREM 1200	3	STAT 1040	3
ACCT 2840	3	American History Elective	3
AGEDS 3100	3	AGEDS 2110A or 2110C	1
AGEDS 3880	3	HORT 2210	3
	17		**16**

Junior

Fall	Credits	Spring	Credits
ECON 2300	3	Intl Perspectives Elective	3
AGEDS 3150	3	AGEDS 4010	3
PSYCH 3330	3	Elective	6
AGEDS 4880	3	AGRON 1820	3
Elective	3		
	15		**15**

Senior

Fall	Credits	Spring	Credits
AGEDS 3110	3	AGEDS 4160	1
AGEDS 4020	3	AGEDS 4170	1-16
Elective	6		
SPED 4010	3		
U.S. Cultures and Communities (formerly U.S. 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 4000 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 2110		
AGEDS 3100	Foundations of Agricultural Education Programs	3
AGEDS 3110	Presentation and Sales Strategies for Agricultural Audiences	3
AGEDS 3120	Science With Practice	3

AGEDS 3150	Personal, Professional, and Entrepreneurial Leadership in Agriculture	3
AGEDS 3270	Survey of Agriculture and Life Sciences Communication	3
AGEDS 3880	Agricultural Mechanics Applications	3
AGEDS 4020	Methods of Teaching in Agriculture and Life Sciences	3
AGEDS 4120	Internship in Agricultural Education and Studies	2-6
AGEDS 4140	Developing Agricultural Education Programs in Non-Formal Settings	2
AGEDS 4500	Farm Management and Operation	3
AGEDS 4510	Agricultural Law	3
AGEDS 4610	Innovation Diffusion and the Role of Agricultural and Extension Education	3
AGEDS 4880	Methods of Teaching Agricultural Mechanics	3
AGEDS 4900		1-3
AGEDS 4960A	International	1-3
or AGEDS 4960	Domestic	
AGEDS 4990	Undergraduate Research	1-30

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.