

Department of Agricultural  
Systems Technology  
and Education  
College of Agriculture

Published September 2009

Effective for students beginning degree Summer Sem. 2009 thru Spring Sem. 2010

**Admission Requirements For This Major**

1. New freshmen admitted to USU in good standing qualify for admission to this major.
2. Transfer students from other institutions need a 2.75 total GPA for admission to this major in good standing.
3. Students transferring from other USU majors need a total GPA of 2.75 for admission to this major in good standing.

**The Program**

The Department of Agricultural Systems Technology and Education at Utah State University offers several programs in applied research and skill training supported by theory. Each program is designed so that students can advance to the succeeding level without experiencing problems with course scheduling or requirements.

The **Bachelor of Science (BS) Degree** in Agricultural Education is designed to develop the needed background knowledge of basic agricultural concepts and technologies for teaching and cooperative extension. Coursework covers topics in such fields as agricultural economics; agricultural mechanization; animal, dairy and veterinary sciences; plant and soil science; and natural resources. Students choosing this major must also be admitted to the Secondary Teacher Education Program (STEP) administered by the Emma Eccles Jones College of Education and Human Services.

**Departmental Policies**

**Departmental Standards.** All graduates from the department must satisfy requirements for the basic core curriculum and meet the following three minimum requirements: (1) Grade point average must be 2.75 or higher in all courses required for the major. (2) Courses required for the major may be repeated only once to improve a grade. (3) Courses required for the major may not be taken for *pass-fail* credit.

**Academic Advising.** The format of the agricultural education curriculum with emphasis areas has opened up new areas to provide greater opportunities and flexibility in the major. However, the “core concept” with “emphasis areas” requires that a very close student-academic advisor relationship be established and be continued through each student’s bachelor’s degree program. The student must take the responsibility of establishing this close working relationship with his or her advisor. This should be done soon after the student’s entry into the department.

**General Catalog.** A *General Catalog* may be obtained by phoning Express-a-book at one of the following numbers: (800) 662-3950, (435) 797-3950, or FAX (435) 797-8261. The *General Catalog* may also be purchased at the USU Bookstore or viewed online at: <http://www.usu.edu/generalcatalog/>

**Career Opportunities**

The **Bachelor of Science (BS) Degree** in Agricultural Education prepares an individual to become a high school teacher of agriculture. High school teaching opportunities exist in Utah, the Intermountain West, and the United States. Those earning a BS Degree in Agricultural Education become eligible for teacher licensure in Utah. Additional requirements or endorsements may be required in other states.

This program also prepares students for jobs in related fields in which abilities in technical agriculture, teaching, and leadership are required. This includes many government and business agencies.

**Degrees and Programs Offered Through This Department**

**Agricultural Machinery Technology:**

- One-year Technology Certificate
- Associate of Applied Science (AAS)

**Agricultural Education:**

- Bachelor of Science (BS)

**Agricultural Systems Technology:**

- Bachelor of Science (BS)
  - Agricultural Mechanization Emphasis
  - Agribusiness Emphasis
- Master of Science (MS)
  - Agricultural Mechanization Specialization
  - International Agricultural Extension Specialization
  - Agricultural Extension Education Specialization
  - Family and Consumer Sciences Education and Extension Specialization
  - Secondary and Postsecondary Agricultural Education Specialization

**Family and Consumer Sciences Education:**

- Bachelor of Science (BS)

**Agricultural Communication and Journalism:**

- Bachelor of Science (BS) offered jointly with Journalism and Communication Department

**Academic Advisement**

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact their department, college, or the Office of University Advising.

**Graduation Requirements:  
BS Degree in Agricultural Education**

**Minimum University Requirements\***

Total credits . . . . .	120
Grade point average (most majors require higher GPA) . . . . .	2.00 GPA
Credits of C- or better . . . . .	100
Credits of upper-division courses (#3000 or above) . . . . .	40
USU credits . . . . .	30
(20 of which must be upper division, including 10 required by major)	
Completion of approved major program of study . . . . .	See department
Credits in minor (if required by department) . . . . .	12
Credits in American Institutions (ECN 1500; HIST 1700, 2700, or 2710; POLS 1100; or USU 1300). . . . .	3
University Studies requirements . . . . .	See next page

\*Colleges and departments may require more credits or a higher GPA. See requirements on this sheet.

## University Studies Requirements for Agricultural Education Major

**Note:** Approved University Studies courses and requirements are listed in the *General Catalog*. The most current listings are shown online at: <http://www.usu.edu/generalcatalog/>

### General Education Requirements (31-34 credits)

#### Competency Requirements (10 credits)

##### Communications Literacy (CL1 and CL2) (6 credits)

ENGL 1010 (CL1) (3 credits) or satisfactory AP, CLEP, IBO, ACT, or SAT score

**AND**

ENGL 2010 (CL2) (3 credits) or satisfactory IBO score

##### Quantitative Literacy (QL) (4 credits)

MATH 1050 (4 credits)

**OR**

One MATH or STAT course requiring MATH 1050 as a prerequisite

**OR**

Satisfactory AP, CLEP, IBO, ACT, or SAT score

##### Computer and Information Literacy (0 credits)

Passing grade on six computer and information literacy related examinations. (Effective Spring Semester 2010, students must fulfill this requirement prior to enrolling in ENGL 2010.)

#### Breadth Requirements (18-20 credits)

Select at least one approved course from each of the following six categories: **American Institutions (BAI)**, **Creative Arts (BCA)**, **Humanities (BHU)**, **Life Sciences (BLS)**, **Physical Sciences (BPS)**, and **Social Sciences (BSS)**. At least two of the six breadth courses must be University Studies courses with a **USU prefix** (excluding USU 1000, 1010, 1100, 3330, 4900, and 6900). (CLEP or AP credit may be used.) BIOL 1620, USU 1350, or WATS 1200 will fulfill the Life Sciences requirement, CHEM 1110 will fulfill the Physical Sciences requirement, and ECN 1500 will fulfill the American Institutions requirement for students in the Agricultural Education major.

#### Exploration Requirement (3-4 credits)

Choose an additional class from one of the following General Education categories: QL, BAI, BCA, BHU, BLS, BPS, or BSS.

### Depth Education Requirements

#### Communications Intensive (CI) (2 courses)

ASTE 3240 and 4150 will meet this requirement.

#### Quantitative Intensive (QI) (1 course)

ASTE 3040 will meet this requirement.

#### Depth Course Requirements (4 credits minimum, including 2 credits minimum completed in each of two courses)

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: **Humanities and Creative Arts (DHA)** and **Social Sciences (DSS)**. APEC 3010, APEC 3020, or SCED 3210 will meet the DSS requirement.

## Agricultural Education Major Teacher Preparation Courses (40 credits)

The following courses are required to obtain teacher licensure in Agricultural Education. Entry into teacher education requires a total GPA of 2.75.

#### University Studies (see requirements listed above)

#### Professional Education (14 credits)

#### Credits

- SCED 3100 Motivation and Classroom Management (F,Sp) . . . . . 3
- SCED 3210 (CI/DSS) Educational and Multicultural Foundations (F,Sp). . . . . 3
- SCED 4200 (CI) Reading, Writing, and Technology (F,Sp) . . . . . 3
- SCED 4210 Cognition and Evaluation of Student Learning (F,Sp) . . . . . 3
- SPED 4000 Education of Exceptional Individuals (F,Sp,Su) . . . . . 2

#### Agricultural Education (26 credits)

#### Credits

- ASTE 2710 Orientation to Agricultural Education (F) . . . . . 2
- ASTE 3100 Leadership Applications in Agricultural Science, Management, and Development (Sp) . . . . . 2
- ASTE 3240 (CI) Teaching in Laboratory Settings (Sp) . . . . . 3
- ASTE 3300 Clinical Experience I in Agricultural Education (Sp) . . . . . 1
- ASTE 3620 Managing the FFA and SAE Programs (Sp) . . . . . 2
- ASTE 4150 (CI) Methods of Teaching Agriculture (F) . . . . . 3
- ASTE 4300 Clinical Experience II in Agricultural Education (F) . . . . . 1
- ASTE 5500 Agricultural Education Secondary Curriculum Seminar (Sp) . . . . . 2
- ASTE 5630 Agricultural Education Student Teaching in Secondary Schools (Sp) . . . . . 10

## Agricultural Education Teaching Composites Emphasis Areas (52-55 credits)

These emphasis areas will *not* appear on a student's transcript. They are emphasis areas approved by the Utah State Office of Education.

#### Production and Processing (52-53 credits)

#### Credits

- ADVS 1110 Introduction to Animal Science (F,Sp) . . . . . 4
- ADVS 4560 (QI) Principles of Animal Breeding (F) . . . . . 3
- ADVS course . . . . . 2-3
- APEC 3010 (DSS) Introduction to Agricultural Economics and Agribusiness (Sp) (3 cr) **or**
- APEC 3020 (DSS) Firm Finance and Records Analysis (Sp) (3 cr) . . . . . 3
- ASTE 2200 Electricity in Agricultural Systems (Sp) . . . . . 3
- ASTE 2830 Agribusiness Sales and Marketing (F) . . . . . 3
- ASTE 3030 Metal Welding Processes and Technology in Agriculture (F) . . . . . 3
- ASTE 3040 (QI) Fabrication Practices in Agricultural Buildings (Sp) . . . . . 2
- ASTE 3050 (CI) Technical and Professional Communication Principles in Agriculture (F,Sp) . . . . . 3
- ASTE 3080 Compact Power Units for Agricultural and Turfgrass Applications (Sp) . . . . . 3
- BIOL 1610 Biology I (F) . . . . . 4
- CHEM 1110 (BPS) General Chemistry I (F,Sp) . . . . . 4
- PSC 3000 Fundamentals of Soil Science (F,Sp) . . . . . 4
- PSC 3700 Plant Propagation (F) . . . . . 4
- PSC 4050 Greenhouse Management and Crop Production (Sp) . . . . . 4
- PSC course . . . . . 3

#### Horticulture (55 credits)

- ADVS 1110 Introduction to Animal Science (F,Sp) . . . . . 4
- ASTE 2830 Agribusiness Sales and Marketing (F) . . . . . 3
- ASTE 3040 (QI) Fabrication Practices in Agricultural Buildings (Sp) . . . . . 2
- ASTE 3050 (CI) Technical and Professional Communication Principles in Agriculture (F,Sp) . . . . . 3
- ASTE 3080 Compact Power Units for Agricultural and Turfgrass Applications (Sp) . . . . . 3
- BIOL 1610 Biology I (F) . . . . . 4
- CHEM 1110 (BPS) General Chemistry I (F,Sp) . . . . . 4
- PSC 2200 Pest Management Principles and Practices (Sp) . . . . . 3
- PSC 2600 Annual and Perennial Plant Materials (F) . . . . . 3
- PSC 2620 Woody Plant Materials: Trees and Shrubs for the Landscape (F) . . . . . 3
- PSC 3000 Fundamentals of Soil Science (F,Sp) . . . . . 4
- PSC 3010 Basic Flower Arranging (F) (offered through Distance Education *only*) . . . . . 2
- PSC 3300 Residential Landscapes (Sp) . . . . . 3
- PSC 3700 Plant Propagation (F) . . . . . 4
- PSC 3810 Turfgrass Management (F) . . . . . 3
- PSC 4050 Greenhouse Management and Crop Production (Sp) . . . . . 4
- PSC 4200 Temperate Zone Fruit Production (Sp) . . . . . 3

#### Agricultural Systems (54 credits)

- ADVS 1110 Introduction to Animal Science (F,Sp) . . . . . 4
- APEC 3010 (DSS) Introduction to Agricultural Economics and Agribusiness (Sp) (3 cr) **or**
- APEC 3020 (DSS) Firm Finance and Records Analysis (Sp) (3 cr) . . . . . 3
- ASTE 1010 Introduction to Agricultural Systems Technology (F) . . . . . 3
- ASTE 1640 Agricultural Equipment and Parts Marketing and Communications (F) . . . . . 3
- ASTE 2200 Electricity in Agricultural Systems (Sp) . . . . . 3

	Credits
<input type="checkbox"/> <b>ASTE 3030</b> Metal Welding Processes and Technology in Agriculture (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 3040 (QI)</b> Fabrication Practices in Agricultural Buildings (Sp) . . . . .	2
<input type="checkbox"/> <b>ASTE 3050 (CI)</b> Technical and Professional Communication Principles in Agriculture (F,Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3080</b> Compact Power Units for Agricultural and Turfgrass Applications (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3200</b> Irrigation Principles and Practices (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3600 (QI)</b> Management of Agricultural Machinery Systems (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 4100</b> Agricultural Structures and Environment (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 5260 (CI)</b> Environmental Impacts of Agricultural Systems (F) . . . . .	3
<input type="checkbox"/> <b>CHEM 1110 (BPS)</b> General Chemistry I (F,Sp) . . . . .	4
<input type="checkbox"/> <b>PHYS 1200 (BPS)</b> Introduction to Physics by Hands-on Exploration . . . . .	4
<input type="checkbox"/> <b>PSC 3000</b> Fundamentals of Soil Science (F,Sp) . . . . .	4
<input type="checkbox"/> <b>PSC 4280</b> Field Crops (F odd) . . . . .	3

**Natural Resources (54 credits)**

<input type="checkbox"/> <b>ADVS 1110</b> Introduction to Animal Science (F,Sp) . . . . .	4
<input type="checkbox"/> <b>ASTE 3040 (QI)</b> Fabrication Practices in Agricultural Buildings (Sp) . . . . .	2
<input type="checkbox"/> <b>ASTE 3050 (CI)</b> Technical and Professional Communication Principles in Agriculture (F,Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3080</b> Compact Power Units for Agricultural and Turfgrass Applications (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 5260 (CI)</b> Environmental Impacts of Agricultural Systems (F) . . . . .	3
<input type="checkbox"/> <b>BIOL 1610</b> Biology I (F) . . . . .	4
<input type="checkbox"/> <b>BIOL 1620 (BLS)</b> Biology II (Sp) . . . . .	4
<input type="checkbox"/> <b>BIOL 2220</b> General Ecology (F,Sp) . . . . .	3
<input type="checkbox"/> <b>CHEM 1110 (BPS)</b> General Chemistry I (F,Sp) . . . . .	4

	Credits
<input type="checkbox"/> <b>ENVS 2340 (BSS)</b> Natural Resources and Society (F,Sp) . . . . .	3
<input type="checkbox"/> <b>ENVS 3600</b> Living with Wildlife (Sp) . . . . .	3
<input type="checkbox"/> <b>PSC 3000</b> Fundamentals of Soil Science (F,Sp) (4 cr) <b>or</b>	
<input type="checkbox"/> <b>PSC 4000</b> Soil and Water Conservation (F) (4 cr) . . . . .	4
<input type="checkbox"/> <b>WILD 3600</b> Wildland Plant Ecology and Identification (F) . . . . .	4
<input type="checkbox"/> <b>WILD 3610</b> Wildland Animal Ecology and Identification (F) . . . . .	4
<input type="checkbox"/> <b>WILD 4000</b> Principles of Rangeland Management (Sp) . . . . .	3
<input type="checkbox"/> <b>WILD 4900</b> Managing Dynamic Ecological Systems (Sp) . . . . .	3
<b>Total Credits for Graduation . . . . .</b>	<b>92-95</b>
	<b>(plus University Studies Requirements)</b>

## Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their departments concerning possible changes.

## Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

## For information contact

**Agricultural Systems Technology and Education Department;** ASTE 101;  
1498 North 800 East; Utah State University; 2300 Old Main Hill;  
Logan UT 84322-2300; tel. (435) 797-2230; FAX (435) 797-4002;  
e-mail [eric.worthen@usu.edu](mailto:eric.worthen@usu.edu); <http://www.usu.edu/aste/>

*Prepared by Registrar's Office, Utah State University*