

### Admission Requirements for This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major. Vocational admissions are also available. For further information, contact the department.

2. Transfer students from other institutions and students transferring from other USU majors may be admitted by contacting the department.

### The Programs

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

The Agricultural Machinery Technology Program, which includes both the One-year Technology Certificate and the Associate of Applied Science Degree (two-year) Program, is the only one of its kind in the Western United States. This critical scarcity has secured a program endorsement from the Implement Dealers' Association, which represents dealers and manufacturers throughout the Western United States.

**One-year Technology Certificate Program.** The One-year Technology Certificate Program has its basis in agricultural machinery. This program is designed to familiarize students with the agricultural equipment industry. The **Machinery Certificate** includes technical hands-on training on engines, power trains, hydraulics, DC electrical, and specialized forage, harvesting, tillage, planting, and spraying equipment. At the end of the year, students participate in an occupational experience with a cooperating employer. This employment may extend on through the summer, developing excellent opportunities for future employer reference and on-the-job experience.

**Associate of Applied Science Degree.** The Associate of Applied Science Degree is a second-year continuation of the one-year program in agricultural machinery technology. In this program, specialization courses and training are designed to allow maximum flexibility in developing a curriculum for the student. Basic core classes must be completed in equipment testing, diagnosis, and retailing of parts and equipment. Because it is an associate degree program, a minimum of 6 credits of University Studies courses are required. This requirement facilitates the transition into the four-year program for those students who decide to continue with their education.

### Career Opportunities

The **One-year Technology Certificate Program** provides preparation for entry-level employment opportunities with agricultural implement dealerships and companies in the areas of parts and service. Other opportunities include employment with farm suppliers, feed and fertilizer agencies, corporate farms and ranches, and other related enterprises in positions as salespersons, parts clerks, service center foremen, machinery fieldmen, and assemblymen. The department averages six employment inquiries from dealers and manufacturers for every student available for placement.

The **Associate of Applied Science Degree** is designed to prepare students for rapid advancement in the fields of service management or parts management in positions as sales managers, parts managers, and service managers. These students may be employed by manufacturers such as AGCO, Cat, CNH, John Deere, and Kubota.

### 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/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. The Agricultural Machinery Technology Program advisor is Eric Worthen, (435) 797-7091.

### One-year Technology Certificate in Agricultural Machinery Technology

The **One-year Technology Certificate** in Agricultural Machinery Technology requires a minimum of 31 credits, with the following breakdown of suggested coursework:

Fall Semester	Credits
<input type="checkbox"/> ASTE 1010 Introduction to Agricultural Systems Technology . . . . .	3
<input type="checkbox"/> ASTE 1120 Forage and Harvest Equipment. . . . .	3
<input type="checkbox"/> ASTE 1610 Agricultural Machinery Engines . . . . .	6
<input type="checkbox"/> ASTE 3090 Computer Applications in Agriculture . . . . .	3
<input type="checkbox"/> ASTE 3710 Agricultural Machinery Hydraulic Systems and Diagnosis . . . . .	3
<b>Spring Semester</b>	
<input type="checkbox"/> ASTE 1130 Planting and Tillage Equipment . . . . .	3
<input type="checkbox"/> ASTE 1620 Agricultural Machinery Power Trains . . . . .	6
<input type="checkbox"/> ASTE 2250 Occupational Experience in Agriculture . . . . .	1-6
<input type="checkbox"/> ASTE 3080 Compact Power Units for Agricultural and Turfgrass Applications . . . . .	3

# Associate of Applied Science Degree in Agricultural Machinery Technology

Credits

The Associate of Applied Science Degree in Agricultural Machinery Technology consists of a minimum of 6 credits of University Studies courses, 45 credits in the major (Agricultural Systems Technology and Education), 9 credits in business or related elective coursework, for a total of not less than 60 credits. The suggested breakdown of coursework is listed below.

## University Studies (6 credits)

Classes will be selected from a minimum of two areas for a total of 6 credits. ENGL 1010, Introduction to Writing: Academic Prose (or an equivalent writing or communications class) must be completed as one of these classes.

## Core Classes (45 credits)

The following 45 credits are required:

Credits

<input type="checkbox"/> <b>ASTE 1010</b> Introduction to Agricultural Systems Technology (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 1120</b> Forage and Harvest Equipment (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 1130</b> Planting and Tillage Equipment (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 1610</b> Agricultural Machinery Engines (F) . . . . .	6
<input type="checkbox"/> <b>ASTE 1620</b> Agricultural Machinery Power Trains (Sp) . . . . .	6
<input type="checkbox"/> <b>ASTE 2200</b> Electricity in Agricultural Systems (AC) (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3030</b> Metal Welding Processes and Technology in Agriculture (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 3080</b> Compact Power Units for Agricultural and Turfgrass Applications (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3090</b> Computer Applications in Agriculture (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 3600</b> Management of Agricultural Machinery Systems (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3710</b> Agricultural Machinery Hydraulic Systems and Diagnosis (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 3720</b> Agricultural DC Electrical Systems and Diagnosis (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 3730</b> Agricultural Machinery Auxiliary Systems and Diagnosis (Sp) . . . . .	3

## Business or Related Elective Classes (select 9 credits)

<input type="checkbox"/> <b>ADVS 1110</b> Introduction to Animal Science (F,Sp) . . . . .	4
<input type="checkbox"/> <b>ASTE 2250</b> Occupational Experience in Agriculture (F,Sp) . . . . .	5
<input type="checkbox"/> <b>ASTE 2830</b> Agribusiness Sales and Marketing (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 2900 (BSS)</b> Humanity in the Food Web (F,Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 2930</b> Individualized Projects in Agricultural Mechanics (F,Sp) . . . . .	1-3
<input type="checkbox"/> <b>ASTE 3040</b> Fabrication Practices in Agricultural Buildings (Sp) . . . . .	2
<input type="checkbox"/> <b>ASTE 3050</b> Technical and Professional Communication Principles in Agriculture (F,Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 3090</b> Computer Applications in Agriculture (F) . . . . .	3
<input type="checkbox"/> <b>ASTE 3100</b> Leadership Applications in Agricultural Science, Management, and Development (Sp) . . . . .	2
<input type="checkbox"/> <b>ASTE 3200</b> Irrigation Principles and Practices (Sp) . . . . .	3

<input type="checkbox"/> <b>ASTE 3900</b> Special Problems in Agricultural Systems Technology and Education (F,Sp,Su) . . . . .	1-6
<input type="checkbox"/> <b>ASTE 4100</b> Agricultural Structures and Environment (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 5100</b> Electrical Controls and Motors for Agri-Industrial Applications (Sp) . . . . .	3
<input type="checkbox"/> <b>ASTE 5260</b> Environmental Impacts of Agricultural Systems (F) . . . . .	3
<input type="checkbox"/> <b>BIOL 1610<sup>1</sup></b> Biology I (F) . . . . .	4
(formerly <b>BIOL 1210</b> )	
<input type="checkbox"/> <b>CHEM 1110 (BPS)</b> General Chemistry I (F,Sp) . . . . .	4
<input type="checkbox"/> <b>MATH 1030 (QL)</b> Quantitative Reasoning (F,Sp) . . . . .	3
<input type="checkbox"/> <b>NR 1010 (BSS)</b> Humans and the Changing Global Environment . . . . .	3
<input type="checkbox"/> <b>PHYS 1200 (BPS)</b> Introduction to Physics by Hands-on Exploration . . . . .	4
<input type="checkbox"/> <b>PLSC 2200</b> Pest Management Principles and Practices (Sp) . . . . .	3
<input type="checkbox"/> <b>PLSC 2620</b> Woody Plant Materials: Trees and Shrubs for the Landscape (F) . . . . .	3
<input type="checkbox"/> <b>PLSC 2650</b> Identification and Selection of Plants in Production Agriculture (F) . . . . .	1
<input type="checkbox"/> <b>PLSC 3050</b> Greenhouse Management and Crop Production (Sp) . . . . .	4
<input type="checkbox"/> <b>PLSC 3300</b> Residential Landscapes (Sp) . . . . .	3
<input type="checkbox"/> <b>PLSC 3400</b> Landscape Management Principles and Practices (F) . . . . .	3
<input type="checkbox"/> <b>PLSC 3800</b> Turfgrass Management (F) . . . . .	3
<input type="checkbox"/> <b>PLSC 5550</b> Weed Biology and Control (F) . . . . .	4
<input type="checkbox"/> <b>WATS 1200 (BLS)</b> Biodiversity: Its Conservation and Future (F,Sp) . . . . .	3
<input type="checkbox"/> <b>WILD 4000</b> Principles of Rangeland Management (Sp) . . . . .	3

<sup>1</sup>Due to House Bill 320 (Common Course Numbering), BIOL 1210 was changed to BIOL 1610, effective Summer Semester 2006.

## Elective Courses

Students should select credits approved by the Agricultural Systems Technology and Education Department for flexibility in strengthening areas of insufficient background.

**A total of 60 credits is required.**

## Requirement Changes

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 large print, audio, and braille format 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