

AGRICULTURE WITH AN AREA OF EMPHASIS

PROGRAMS

- Associate of Science (A.S.)
- Certificates of Achievement



**HARTNELL
COLLEGE**

DESCRIPTION

The Associate of Science degree in Agriculture is intended for students interested in a wide range of career and educational pathways. Those who are interested in farm management, harvest operations, agriculture research, and other areas of production agriculture would benefit from this degree. Several areas of emphasis create career pathways for students wanting to work in Agriculture, or eventually transfer to a specialized higher degree.

Students should consider this degree in order to function in a dynamic environment that deals with crops and management of crops from seed to harvest. Agriculture Production deals with all areas of agriculture production. Jobs in research, management, and development are readily available for those who excel in this degree.

LEADS TO CAREER OPPORTUNITIES SUCH AS:

- Food Safety Coordinator
- Product Business Manager
- Ranch Assistant
- Sales Representative

TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree may differ from those needed to prepare for transfer. Students who plan to transfer to a four-year college or university should schedule an appointment with a Hartnell College counselor to develop a student education plan before beginning their program.

TRANSFER RESOURCES

www.ASSIST.org – CSU and UC Articulation Agreements and Major Search Engine

CSU System Information -
<http://www2.calstate.edu>

FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that Hartnell College offers a full array of financial aid programs, federal loan programs, and fee waivers.

<https://www.hartnell.edu/students/fa/net-price-calculator.html>

AGRICULTURE WITH AN AREA OF EMPHASIS (AS.AGRI)

ASSOCIATE OF SCIENCE

Program Outcomes: Upon successful completion of this program a student will be able to:

- describe and employ current growing practices in the area of desired study.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

Required Major Courses (17-20 units)

<input type="checkbox"/>	ABT-110 – Careers in Agriculture and Technology	2.0
<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-94 – Agriculture Enterprise Project	2.0
<input type="checkbox"/>	ABT-99 – Occupational Cooperative Work Experience (3 units recommended)	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.0
	OR	
	BUS-43 – Business Information Systems and Information Literacy	4.0
	OR	
	BUS-50 – Introduction to PC Applications	4.0

Required Major Courses (Complete ONE AREA OF EMPHASIS 18-19 units)

<input type="checkbox"/>	AGRICULTURE BUSINESS	18.0
	o ABT-49, 52, 54, 80, 91	
	o ABT-53 OR ECO-5	
<input type="checkbox"/>	SUSTAINABLE CROP MANAGEMENT	18.0
	o ABT-80, 81, 82, 83, 98	
	o Complete 1 course ABT-41, 93, 95, 96, 97	
<input type="checkbox"/>	FOOD SAFETY	15.0
	o ABT-130, 131, 132, 133, 134, 135, 80,	
	o ABT-96 OR ABT-97	
<input type="checkbox"/>	HORTICULTURAL TECHNICIAN	18.0-19.0
	o ABT-80, 81, 82, 83, 98	
	o Complete 1 course BIO-59, CHM-22, 23	
<input type="checkbox"/>	PRECISION IRRIGATION	18.0
	o ABT-80, 91, 98, 130, 134, 160	
	o Complete 1 course ABT-95, 96, 97	
<input type="checkbox"/>	SMALL FARM OPERATION AND MANAGEMENT	18.0
	o ABT-41, 80, 91, 101, 102, 103, 104, 105 134	
<input type="checkbox"/>	AGRICULTURE TECHNOLOGY EMPHASIS	18.0
	o ABT-66, 67, 91, ADT-100, MFGT-75, 150	

SUBTOTAL: 35-39 UNITS

General Education – Required Courses

Students must complete one of the following General Education Plans:

HCCD GE (see page 68) **MAT-126** or higher

- Natural Sciences Social & Behavioral Sciences Humanities
 Ethnic Groups in the US Language and Rationality

SUBTOTAL: 21 UNITS

Students can double-count required courses and courses for General Education

■ **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

TOTAL: 60 UNITS

AGRICULTURE BUSINESS (CT.AGR)

CERTIFICATE OF ACHIEVEMENT

Program Outcomes: Upon successful completion of this program a student will be able to:

- describe and employ current growing practices in the area of desired study.
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- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

Required Major Courses (21-24 units)

<input type="checkbox"/>	ABT-110 – Careers in Agriculture and Technology	2.0
<input type="checkbox"/>	ABT-49 – Introduction to Agriculture Business	3.0
<input type="checkbox"/>	ABT-54 – Agriculture Marketing	3.0
<input type="checkbox"/>	ABT-58 – Agriculture Laws & Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-99 – Cooperative Work Experience	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.0
	OR	
	BUS-43 – Business Info Systems and Info Literacy	4.0
	OR	
	BUS-50 – Introduction to PC Applications	4.0

Major Electives (Complete 6 units)

<input type="checkbox"/>	ABT-52 – Sales & Services in Agribusiness	3.0
<input type="checkbox"/>	ABT-53 – Agribusiness Economic	3.0
	OR	
	ECO-5 – Principles of Microeconomics	
<input type="checkbox"/>	ABT-80 – Introduction to Sustainable Agriculture & Food	3.0
<input type="checkbox"/>	ABT-160 – Introduction to Agriculture	3.0
<input type="checkbox"/>	BUS-1A – Financial Accounting	4.0
<input type="checkbox"/>	BUS-18 – The Legal Environment of Business	3.0

Other Required Courses

<input type="checkbox"/>	ENG-101* – Intermediate Composition and Reading	3.0
	OR	
	ESL-101* – Academic Writing and Reading II	5.0
<input type="checkbox"/>	MAT-121** – Elementary Algebra	5.0

TOTAL: 27-30 UNITS

*Eligibility for ENG-1A or ENG-1AX fulfills this requirement.

**Eligibility for MAT-126 or any higher level math class fulfills this requirement.

GAINFUL EMPLOYMENT INFORMATION:

See the certificate program cost and the employment outlook for graduates by clicking the link below:
<https://www.hartnell.edu/academics-affairs/gecp/>

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AGRICULTURE PRODUCTION (CT.AGRP)

CERTIFICATE OF ACHIEVEMENT

Program Outcomes: Upon successful completion of this program a student will be able to:

- describe and employ current growing practices in the area of desired study.
- distinguish and propose inputs and controls needed to produce a consistently healthy crop in an area of study.
- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

Required Major Courses (15-18 units)

<input type="checkbox"/>	ABT-110 – Careers in Agriculture and Technology	2.0
<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-90 – Soil Science	3.0
<input type="checkbox"/>	ABT-92 – Plant Science	3.0
<input type="checkbox"/>	ABT-99 – Cooperative Work Experience	1.0-3.0
<input type="checkbox"/>	ABT-57 – Agriculture Computer Applications	3.0
OR		
	BUS-43 – Business Information Systems and Info Literacy	4.0
OR		
	BUS-50 – Introduction to PC Applications	4.0

Major A Electives (Complete 6 units)

<input type="checkbox"/>	ABT-91 – Irrigation Practices and Materials	3.0
<input type="checkbox"/>	ABT-95 – Introduction to Small Fruit Science	3.0
<input type="checkbox"/>	ABT-96 – Vegetable Crop Production	3.0
<input type="checkbox"/>	ABT-97 – Vineyard Production & Management	3.0
<input type="checkbox"/>	ABT-98 – Fertilizers & Plant Nutrition	3.0

Major B Electives (Complete 6 units)

<input type="checkbox"/>	ABT-41 – Pesticide Applicator Certification Training	3.0
<input type="checkbox"/>	ABT-66 – Intro to Geographic Information System	3.0
<input type="checkbox"/>	ABT-67 – Intermediate GIS w/ Applications to Agriculture	4.0
<input type="checkbox"/>	ABT-80 – Introduction to Sustainable Agriculture & Food	3.0
<input type="checkbox"/>	ABT-81 – Integrated Pest Management Principles in Entomology	3.0
<input type="checkbox"/>	ABT-82 – Integrated Pest Management Principles in Weed Science	3.0
<input type="checkbox"/>	ABT-83 – Integrated Pest Management Principles in Plant Pathology	3.0
<input type="checkbox"/>	ABT-93 – Product Processing and Cooling	3.0
<input type="checkbox"/>	ABT-160 – Introduction to Agriculture	3.0
<input type="checkbox"/>	AIT-70 – Introduction to Mechanized Agriculture	3.0
OR		
	AIT-71 – Agricultural and Industrial Equipment Operation	
OR		
	AIT-75 – Agricultural Machinery Management	
<input type="checkbox"/>	ABT-101 – Organic Vegetable Production	1.5
<input type="checkbox"/>	ABT-102 – Organic Field Production Methods	1.5
<input type="checkbox"/>	ABT-103 – Ag Planning and Recordkeeping for Small Farmers	1.5
<input type="checkbox"/>	ABT-104 – Ag Business Development for New Organic Farmers	1.5
<input type="checkbox"/>	ABT-105 – Marketing Opportunities and Growth for Organic Farming	1.5
<input type="checkbox"/>	ABT-130 – Introduction to Food Safety	1.5

Other Required Courses

<input type="checkbox"/>	ENG-101* – Intermediate Composition and Reading	3.0
OR		
	ESL-101* – Academic Writing and Reading II	5.0
<input type="checkbox"/>	MAT-121** – Elementary Algebra	5.0

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*Eligibility for ENG-1A or ENG-1AX fulfills this requirement.

**Eligibility for MAT-123 or any higher level math course fulfills this requirement.

TOTAL: 27-30 UNITS

FOOD SAFETY (CT.AGFS)

CERTIFICATE OF ACHIEVEMENT

Program Outcomes: Upon successful completion of this program a student will be able to:

- describe and employ current growing practices in the area of desired study.
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- recognize and evaluate how agriculture is in a progressively changing flux of knowledge and innovation.
- relate why sustainable agriculture is the cornerstone of future growing trends.

Required Major Courses (12 units)

<input type="checkbox"/>	ABT-58 – Agriculture Laws and Regulations	3.0
<input type="checkbox"/>	ABT-130 – Introduction to Food Safety	1.5
<input type="checkbox"/>	ABT-131 – Agricultural Practices for Food Safety	1.5
<input type="checkbox"/>	ABT-132 – Food Safety Management	1.5
<input type="checkbox"/>	ABT-133 – Facility Management for Food Safety	1.5
<input type="checkbox"/>	ABT-134 – Environmental Effects on Food Borne	1.5
<input type="checkbox"/>	ABT-135 – Introduction to Food Microbiology	1.5

Other Required Courses

<input type="checkbox"/>	ENG-101* – Intermediate Composition and Reading	3.0
	OR	
	ESL-101* – Academic Writing and Reading II	5.0
<input type="checkbox"/>	MAT-106** – Integrated Mathematics	3.0

TOTAL: 12 UNITS

*Eligibility for ENG-1A or ENG-1AX fulfills this requirement.

**Eligibility for MAT-126 or any higher level math class fulfills this requirement.

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