

AGRICULTURE

Agriculture@bigbend.edu

The Agriculture department offers two pathways for students pursuing a degree in agriculture. An Associate in Applied Science (AAS) Agriculture Technology degree prepares students for a direct route to start their careers in the agricultural industry. The transfer pathway, Associate in Applied Science-Transfer degree (AAS-T), allows students to seamlessly transfer to Washington State University and earn a bachelor's degree in agriculture.

Ag Technology & Management (non-transfer) AAS (95+ credits)

BBCB provides students interested in Agricultural Technology and Management a comprehensive Associate in Applied Science (AAS) degree with three customized pathways intended to provide graduates with the skills needed to independently operate or support local, regional and national agriculture industries. The degree plan specifically outlines pathways for students interested in specializing in Agricultural Business, Agronomy, and/or the use of Uncrewed Aerial Systems (UAS).

Program and Degree Learning Outcomes:

- IO1 **Communication**
Students will be able to communicate clearly and effectively within a workplace context.
- IO2 **Quantitative Reasoning**
Students will be able to reason mathematically using methods appropriate to the profession.
- IO3 **Human Relations/Workplace Skills**
Students will be able to demonstrate teamwork and/or workplace specific skills related to human relations.
- PO4 Students will demonstrate critical-thinking and problem-solving skills as they make decisions in agricultural management situations
- PO5 Students will demonstrate knowledge of scientific principles when applied to a variety of crop production systems
- PO6 Students will show knowledge of workplace safety when handling food, chemical/pesticides, and equipment.
- PO7 Students will select and use the appropriate precision and software application technology.

Ag Technology & Management - Agricultural Business Emphasis (95+ cr): The following schedule of courses is the recommended program for completing the AAS degree with the Agricultural Business specialization. See a program advisor for substitute courses.

First Year

Fall Quarter

AGR 101 Introduction to Ag Industry & Careers	2
AGR 261 Plant Science	5
BUS& 101 Introduction to Business	5
MAP 117 Applied Math for Workforce Programs I	5

Winter Quarter

AGR 263 Soils	5
AGR 212 Ag Safety and Pesticides.....	5
ACCT& 105 Introduction to Accounting	5

Spring Quarter	
BIM 110 Microsoft Office Essentials	3
ECON& 201 Microeconomics	5
SOC&101 Intro to Sociology	5
OR PSYCH&100 General Psychology	

Second Year

Fall Quarter

ACCT 262 Introduction to Quickbooks	2
AGR 120 Introduction to Precision Agriculture.....	5
AGR 241 Farm & Ranch Management	5
ENGL 109 Applied Technical Writing.....	3
OR ENGL&101 English Composition I	

Winter Quarter

AGR 272 Food Sustainability & Safety.....	5
BUS 200 Supervision	5
CMST&220 Public Speaking	5
OR CMST&210 Interpersonal Communications	
FAD 150 Industrial First Aid	2

Spring Quarter

AGR 271 Ag Sales & Marketing	5
BUS 170 Consumer Finance	5
Approved Elective	5

Summer Quarter

AGR 295 Work-based Learning Internship.....	1-5
AGR 297 Work-based Learning Seminar	1
OR CDL 100 Commercial Driver's License	17

Ag Technology & Management – Agronomy Emphasis (95+ cr): Agronomy is the science of soil management and crop production. Soil and crop production are the base of the agriculture industry. The following schedule of courses is the recommended program for completing the AAS degree with the Agronomy specialization. See a program advisor for substitute courses.

First Year

Fall Quarter

AGR 101 Introduction to Ag Industry & Careers	2
AGR 261 Plant Science	5
ENGL 109 Applied Technical Writing.....	3
OR ENGL&101 English Composition I	
MAP 117 Applied Math for Workforce Programs I	5

Winter Quarter

AGR 263 Soils	5
AGR 212 Ag Safety and Pesticides.....	5
BIM 110 Microsoft Office Essentials	3

SOC&101 Intro to Sociology	5
OR PSYCH&100 General Psychology	
Spring Quarter	
AGR 251 Integrated Pest Management	5
CMST&220 Public Speaking	5
OR CMST&210 Interpersonal Communications	
ECON& 201 Microeconomics	5
Second Year	
Fall Quarter	
AGR 120 Introduction to Precision Agriculture.....	5
AGR 241 Farm & Ranch Management	5
AGR 265 Crop Production	5
Winter Quarter	
AGR 272 Food Sustainability & Safety.....	5
BUS 200 Supervision	5
CHEM& 105 Chemical Concepts	5
FAD 150 Industrial First Aid.....	2
Spring Quarter	
AGR 211 Ag Weeds Identification and Controls.....	5
AGR 110 Water Management in Agriculture	3
AGR 271 Ag Sales & Marketing	5
Summer Quarter	
AGR 295 Work-based Learning Internship.....	1-5
AGR 297 Work-based Learning Seminar	1
OR CDL 100 Commercial Driver's License	17

Ag Technology & Management - Uncrewed Aerial Systems Emphasis (95+ cr): The following schedule of courses is the recommended program for completing the AAS degree with the Unmanned Systems specialization. See a program advisor for substitute courses.

First Year	
Fall Quarter	
AGR 101 Introduction to Ag Industry & Careers.....	2
AGR 261 Plant Science	5
CMST&220 Public Speaking	5
OR CMST&210 Interpersonal Communications	
UAS 112 UAS Ground School.....	5
Winter Quarter	
AGR 263 Soils	5
GIS 110 Geographical Information Systems (GIS) I	4
MAP 117 Applied Math for Workforce Programs I.....	5

Spring Quarter	
BIM 110 Microsoft Office Essentials	3
GIS 210 Geographical Information Systems (GIS) II	5
SOC&101 Intro to Sociology	5
OR PSYCH&100 General Psychology	
UAS 142 UAS Flight Lab	6
Second Year	
Fall Quarter	
AGR 120 Introduction to Precision Agriculture.....	5
AGR 241 Farm & Ranch Management	5
ENGL 109 Applied Technical Writing.....	3
Winter Quarter	
AGR 272 Food Sustainability & Safety.....	5
BUS 200 Supervision	5
AGR 212 Ag Safety and Pesticides.....	5
Spring Quarter	
ECON& 201 Microeconomics	5
AGR 271 Ag Sales & Marketing	5
FAD 150 Industrial First Aid.....	2
UAS 107 Commercial Remote Pilot Certification	2
Summer Quarter	
AGR 295 Work-based Learning Internship.....	1-5
AGR 297 Work-based Learning Seminar	1
OR CDL 100 Commercial Driver's License (17 cr)	

Certificate of Achievement

The Certificate of Achievement is designed to provide recognition for the student who does not plan to complete an AAS degree program. A student who completes one of the following options will earn a certificate of achievement from BBCC.

Agriculture Business Certificate of Achievement (47+ credits)

Agricultural business is a large sector of the agriculture industry. This certificate will provide students the foundational knowledge and skills to work in or operate an agricultural business. Upon completion of the following courses, the student will earn a Certificate of Achievement. See a program advisor for substitute courses.

Program and Degree Learning Outcomes:

IO1 *Communication*

Students will be able to communicate clearly and effectively within a workplace context.

IO2 *Quantitative Reasoning*

Students will be able to reason mathematically using methods appropriate to the profession.

- IO3 **Human Relations/Workplace Skills**
Students will be able to demonstrate teamwork and/or workplace specific skills related to human relations.
- PO4 Students will demonstrate critical-thinking and problem-solving skills as they make decisions in agricultural management situations
- PO8 Students will demonstrate knowledge of business principles when applied to agricultural businesses and operations.

ACCT 105 Introduction to Accounting.....	5
AGR 101 Introduction to Ag Industry & Careers	2
AGR 241 Farm & Ranch Management	5
AGR 271 Ag Sales and Marketing.....	5
BUS& 101 Introduction to Business	5
BUS 170 Consumer Finance	5
CMST&220 Public Speaking	5
OR CMST&210 Interpersonal Communications	
ENGL 109 Applied Technical Writing.....	3
OR ENGL&101 English Composition I	
FAD 150 Industrial First Aid.....	2
MAP 117 Applied Math for Workforce	5
SOC&101 Intro to Sociology	5
OR PSYCH&100 General Psychology	

Agricultural Agronomy Certificate of Achievement (55+ credits)

This certificate will provide students the foundational knowledge and skills to work in or support crop production. Upon completion of the following courses, the student will earn a Certificate of Achievement. See a program advisor for substitute courses.

Program and Degree Learning Outcomes:

- IO1 **Communication**
Students will be able to communicate clearly and effectively within a workplace context.
- IO2 **Quantitative Reasoning**
Students will be able to reason mathematically using methods appropriate to the profession.
- IO3 **Human Relations/Workplace Skills**
Students will be able to demonstrate teamwork and/or workplace specific skills related to human relations.
- PO4 Students will demonstrate critical-thinking and problem-solving skills as they make decisions in agricultural management situations
- PO12 Students will apply plant and soil science concepts to crop production.

AGR 101 Introduction to Ag Industry & Careers	2
AGR 110 Water Management in Agriculture	3
AGR 211 Ag Weeds Identification and Controls.....	5
AGR 251 Integrated Pest Management	5
AGR 261 Plant Science	5
AGR 263 Soils	5
AGR 265 Crop Production	5

CHEM& 105 Chemical Concepts	5
CMST&220 Public Speaking	5
OR CMST&210 Interpersonal Communications	
ENGL 109 Applied Technical Writing.....	3
OR ENGL&101 English Composition I	
FAD 150 Industrial First Aid.....	2
MAP 117 Applied Math for Workforce Programs I.....	5
SOC&101 Intro to Sociology.....	5
OR PSYCH&100 General Psychology	

Agriculture Transfer AAS-T (94 credits)

This AAS-T degree program is designed to give students a strong foundation in the agricultural fields and aligns with the specific WSU majors within the *Integrated Plant Sciences* and *Agricultural Food Systems* degrees. Students completing this degree will be prepared to begin upper division work in agriculture at WSU.

Customized Articulation Agreements are intended to eliminate duplication of coursework and better integrate programs to ensure a more efficient pathway to graduation. The agreements provide Big Bend Community College students with a more efficient transfer pathway to Washington State University (WSU). The current Custom Articulation Agreement options include the following:

- *Field Crop Management*
- *Agricultural and Food Business Economics*
- *Agricultural Technology and Production Management*

Students should work with a BCCC Agriculture Program Advisor to develop a schedule of courses to meet WSU program and transfer requirements.

Program and Degree Learning Outcomes:

- IO1 ***Communication***
Students will be able to communicate clearly and effectively within a workplace context.
- IO2 ***Quantitative Reasoning***
Students will be able to reason mathematically using methods appropriate to the profession.
- IO3 ***Human Relations/Workplace Skills***
Students will be able to demonstrate teamwork and/or workplace specific skills related to human relations.
- PO4 Students will demonstrate critical-thinking and problem-solving skills as they make decisions in agricultural management situations
- PO5 Students will demonstrate knowledge of scientific principles when applied to a variety of crop production systems

The following schedule of courses is the recommended program for completing the AAS-T degree. See a program advisor for substitute courses.

First Year

Fall Quarter

AGR 101 Introduction to Ag Industry & Careers	2
AGR 261 Plant Science	5
ANTH& 100 Survey of Anthropology.....	5
ENGL& 101 Composition I.....	5

Winter Quarter	
AGR Elective*	5
BOT 130 Botany.....	5
ECON& 201 Microeconomics	5

Spring Quarter	
ART& 100 Art Appreciation	5
CMST& 220 Public Speaking.....	5
MATH& 146 Introduction to Statistics	5

Second Year	
Fall Quarter	
AGR Elective*	5
CHEM& 161 General Chemistry	5
HIST& 116 Western Civilization I.....	5
OR HIST& 118 Western Civilization III	

Winter Quarter	
AGR 263 Soils	5
CHEM& 162 General Chemistry	5
PSYC& 100 General Psychology	5
OR SOC& 101 Introduction to Sociology	

Spring Quarter	
AGR Elective*	5
CHEM& 163 General Chemistry	5
FAD 150 Industrial First Aid.....	2

*Approved AGR Electives: AGR 212, 241, 251, 271, 272, 295, 297