

# SUSTAINABLE AGRICULTURE (AAS)

Degree: Associate of Applied Science  
Major: Sustainable Agriculture  
Program Code: 1310

## About This Major . . .

The Sustainable Agriculture curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. Students learn the fundamentals of sustainable agriculture, focusing on crop and animal production with farm business. Emphasis is placed on entrepreneurial and practical field training. Students will complete a business plan and an agricultural internship in marketing and farming. Graduates are qualified for employment in a variety of positions associated with sustainable agriculture, including horticultural and livestock operations, wholesale and retail management, nursery operations, and environmental and agricultural education.

This program will provide the student with an understanding of Sustainable Agriculture and its principles of operation and control. The graduate will understand the technical aspects of the work, the responsibilities of the work and the importance of safety in this vitally important career.

For more information on what you can do with this major, visit WCCC's Programs of Study (<https://www.coloradomesa.edu/wccc/programs/>) page.

All CMU/WCCC associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select 'Print Options.'** This will give you the options to either 'Send Page to Printer' or

'Download PDF of This Page.' The 'Download PDF of This Page' option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

## Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and WCCC Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

## Specific to this degree:

- A minimum of 16 hours taken at CMU in no fewer than two semesters.

## Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher) <sup>1</sup>	3
<b>Other Essential Learning Core Courses</b>		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3

Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course	3
<b>Total Semester Credit Hours</b>	<b>15</b>

<sup>1</sup> This is a 4 semester credit hour course. 3 credits apply to Essential Learning requirements and 1 credit applies to General Electives.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(37 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Agriculture Courses</b>		
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 102	Agriculture Economics	3
AGRS 105	Animal Science	3
AGRS 125	Agricultural Machinery	3
AGRS 205	Farm and Ranch Management	3
AGRS 210	Agricultural Marketing	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 293	Cooperative Experience	5
<b>Total Semester Credit Hours</b>		<b>28</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select 9 semester hours of the following. See recommended advising tracks.		9
ACCT 201	Principles of Financial Accounting	
AGRS 103	Introduction to Entomology	
AGRS 103L	Introduction to Entomology Laboratory	
AGRS 108	Composting	
AGRS 110	Integrated Pest Management	
AGRS 118	Farm Structures and Green Houses	
AGRS 208	Agricultural Finance	
AGRS 224	Integrated Ranch Management	
AGRS 225	Feeds and Feeding	
AGRS 230	Farm Animal Anatomy and Physiology	
AGRS 250	Live Animal and Carcass Evaluation	
AGRS 250L	Live Animal and Carcass Evaluation Laboratory	
AGRS 260	Plant Propagation	

AGRS 288	Livestock Practicum	
AGRS 296	Topics:	
CISB 101	Business Information Technology	
<b>Total Semester Credit Hours</b>		<b>9</b>

## General Electives

(6 semester hours)

Code	Title	Semester Credit Hours
MATH 108	Technical Mathematics	1
Select Additional Electives		5
<b>Total Semester Credit Hours</b>		<b>6</b>

## Suggested Course Plan Animal Science Advising Sheet

<b>First Year</b>		
<b>Fall Semester</b>		
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 125	Agricultural Machinery	3
AGRS 105	Animal Science	3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
ENGL 111	English Composition I-GTC01	3
AGRS 230	Farm Animal Anatomy and Physiology	3
AGRS 102	Agriculture Economics	3
AGRS 205	Farm and Ranch Management	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Summer Semester</b>		
AGRS 293	Cooperative Experience	5
<b>Semester Credit Hours</b>		<b>5</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ENGL 112	English Composition II-GTC02	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 250	Live Animal and Carcass Evaluation	1
AGRS 250L	Live Animal and Carcass Evaluation Laboratory	2
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
AGRS 210	Agricultural Marketing	3
AGRS 288	Livestock Practicum	3
AGRS 225	Feeds and Feeding	4
AGRS 296	Topics: (Sustainable Agriculture Practices)	1-3
General Electives (if needed)		2
<b>Semester Credit Hours</b>		<b>15-17</b>
<b>Total Semester Credit Hours</b>		<b>62-64</b>

## Crop/Plant Advising Sheet

First Year		Semester Credit Hours
Fall Semester		
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 125	Agricultural Machinery	3
AGRS 105	Animal Science	3
Semester Credit Hours		14
Spring Semester		
ENGL 111	English Composition I-GTCO1	3
AGRS 102	Agriculture Economics	3
AGRS 103	Introduction to Entomology	2
AGRS 103L	Introduction to Entomology Laboratory	1
AGRS 205	Farm and Ranch Management	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
Semester Credit Hours		15
Summer Semester		
AGRS 293	Cooperative Experience	5
Semester Credit Hours		5
Second Year		
Fall Semester		
ENGL 112	English Composition II-GTCO2	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 260	Plant Propagation	3
General Elective <sup>1</sup>		3
Semester Credit Hours		13
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 210	Agricultural Marketing	3
AGRS 110	Integrated Pest Management	3
General Elective		2
Semester Credit Hours		13
Total Semester Credit Hours		60

<sup>1</sup> AGRS 108 is suggested.

## Bio-Agriculture Advising Sheet

First Year		Semester Credit Hours
Fall Semester		
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 125	Agricultural Machinery	3
AGRS 105	Animal Science	3
Semester Credit Hours		14
Spring Semester		
ENGL 111	English Composition I-GTCO1	3
AGRS 102	Agriculture Economics	3
AGRS 103	Introduction to Entomology	2
AGRS 103L	Introduction to Entomology Laboratory	1
AGRS 205	Farm and Ranch Management	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
Semester Credit Hours		15

Summer Semester		
AGRS 293	Cooperative Experience	5
Semester Credit Hours		5
Second Year		
Fall Semester		
ENGL 112	English Composition II-GTCO2	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 260	Plant Propagation	3
AGRS 296 or AGRS 108	Topics: or Composting	3
Semester Credit Hours		13
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 210	Agricultural Marketing	3
AGRS 110	Integrated Pest Management	3
General Elective		2
Semester Credit Hours		13
Total Semester Credit Hours		60

## Agriculture Business Advising Sheet

First Year		Semester Credit Hours
Fall Semester		
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 105	Animal Science	3
ACCT 201	Principles of Financial Accounting	3
Semester Credit Hours		14
Spring Semester		
ENGL 111	English Composition I-GTCO1	3
AGRS 102	Agriculture Economics	3
AGRS 205	Farm and Ranch Management	3
CISB 101	Business Information Technology	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
Semester Credit Hours		15
Summer Semester		
AGRS 293	Cooperative Experience	5
Semester Credit Hours		5
Second Year		
Fall Semester		
ENGL 112	English Composition II-GTCO2	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 125	Agricultural Machinery	3
AGRS 208	Agricultural Finance	3
Semester Credit Hours		13
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 210	Agricultural Marketing	3
General Elective		2
General Elective		3
Semester Credit Hours		13
Total Semester Credit Hours		60

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

### Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.