

AGRICULTURAL SCIENCE, A.A.S.

Major Code: 0514

Agricultural Science is a program which provides fundamental training in the basic sciences as applied to agriculture. All students graduating from our Agricultural Science program have been exposed to a wide breadth of courses, while at the same time allowing enough flexibility to delve deeper into any individual topic. This program offers broad-based training in agriculture, preparing students for employment in the agricultural service sector and for technical on-farm work.

Student Learning Outcomes

Upon successful completion of this program, students will be able to:

- Illustrate a broad-based understanding of the scientific principles important in modern agricultural production
- Demonstrate understanding of key practices and technologies used in the area of their chosen agricultural field
- Utilize tools necessary for data collection and analysis relevant to modern agricultural production
- Interpret data necessary for effective management of crop and animal production
- Describe basic social, political, and economic driving forces impacting the agricultural field of their chosen focus regionally, nationally, and globally

Curriculum Requirements

A minimum of 60 credits is required for degree completion. All students graduating with an Agricultural Science degree will complete the following required courses:

Code	Title	Credits
Requirements		
AGBS 100	Agricultural Economics	3
AGRO 110	Soil Science ¹	3
AGRO 210	Field Crops	3
AGSC 115	Agricultural Science & Context	1
AGSC 132	Introduction to Precision Farming	2
AGSC 137	Agricultural Statistics	3
or MATH 123	Elementary Statistics	
AGSC 250	Application in Ag Science	3
ANSC 101	Intro to Animal Science	3
SUNY General Education Communication Written and Oral as Advised 3		
SUNY General Education Diversity, Equity, Inclusion & Social Justice as Advised 3		
SUNY General Education Social Science, History, World Languages as Advised 6		

Students must complete 27 credits from the following lists:

Fundamental Science

Select 6 credits of the following: 6		
CHEM 110	Contemporary Chemistry ¹	
CHEM 121	General College Chemistry I ¹	
CHEM 122	General College Chemistry II ¹	
BIOL 102	Botany-Form Function Seed Plt ¹	

BIOL 120	General Biology I ¹	
BIOL 121	General Biology II ¹	
PHYS 127	General Physics I ¹	
DANS 100	Dairy Nutrition ¹	
DANS 110	Breeding Dairy Cattle ¹	
DANS 120	Anatomy & Physiology-Dairy Cow ¹	

Agronomy

Select 6 credits of the following: 6	
BIOL 102	Botany-Form Function Seed Plt ¹
AGRO 115	Principles of Compost Mgmt
AGRO 215	Soil Fertility & Fertilizers ¹
ENSC 106	Pesticide Use and Handling
ENSC 107	Integrated Pest Management
HORT 150	Fruit & Vegetable Production ¹
HORT 201	Plant Propagation ¹

Technology

Select 3 credits of the following: 3	
NATR 103	Natural Resources Equipment Op
AGEN 105	Principles of Farm Machinery
AGEN 115	Ag Engr Industry Overview
AGEN as Advised	

Specialty Focus

Select 12 credits from any course of the following prefixes: 12	
AGBS, AGEN, AGNR, AGRO, AGSC, ANSC, AUTO, BIOL, CANA, CHEM, DANS, DTEC, EDU, ENRM, ENSC, ESCI, HORT, NATR, PSYC, PHYS, RENG, SPPR	

Total Credits 60

¹

This course also counts towards SUNY General Education requirements.

Suggested Course Sequence

Students in the two-year Agricultural Science degree will work with their advisors to build a course sequence that corresponds with their future academic needs, while meeting requirements of the degree, but these are three potential course sequences for students with:

1. an agronomy focus
2. an animal science focus
3. a diverse focus for students interested in agricultural education

Agronomy Focus

Course	Title	Credits
Year 1		
Fall		
AGRO 115	Principles of Compost Mgmt	3
AGSC 115	Agricultural Science & Context	1
ANSC 101	Intro to Animal Science	3
AGBS 100	Agricultural Economics	3
AGNR 200	Job Prep Skills & Resources	1
CHEM 121	General College Chemistry I	4
Credits		15
Spring		
AGRO 110	Soil Science	3
BIOL 102	Botany-Form Function Seed Plt	3
COMM 105	Research & Communication	3
ENSC 106	Pesticide Use and Handling	2

HIST 182	History Technology From 1750	3
HORT 150	Fruit & Vegetable Production	3
Credits		17
Year 2		
Fall		
AGRO 210	Field Crops	3
AGSC 132	Introduction to Precision Farming	2
AGEN 105	Principles of Farm Machinery	2
AGEN 115	Ag Engr Industry Overview	1
ENSC 107	Integrated Pest Management	1
SPAN 101	Beginning College Spanish 1	3
Credits		12
Spring		
AGSC 137	Agricultural Statistics	3
AGRO 215	Soil Fertility & Fertilizers	3
AGSC 250	Application in Ag Science	3
HORT 241	Plant Protection	3
SUNY General Education Diversity, Equity, Inclusion & Social Justice as Advised		3
Credits		15
Total Credits		59

Animal Science Focus

Course	Title	Credits
Year 1		
Fall		
AGBS 100	Agricultural Economics	3
AGSC 115	Agricultural Science & Context	1
ANSC 101	Intro to Animal Science	3
DANS 150	Dairy Farm Practicum I	2
DANS 100	Dairy Nutrition	3
AGNR 200	Job Prep Skills & Resources	1
AGRO 115	Principles of Compost Mgmt	3
Credits		16
Spring		
ANSC 150	Live Animal Evaluation	2
AGRO 110	Soil Science	3
DANS 110	Breeding Dairy Cattle	3
AUTO 102	Metals	3
SUNY SUNY General Education Communication Written and Oral as Advised	Education Communication as Advised	3
Credits		14
Year 2		
Fall		
AGRO 210	Field Crops	3
ANSC 110	Livestock Production Mgmt/Tech	3
AGSC 132	Introduction to Precision Farming	2
SUNY General Education Diversity, Equity, Inclusion & Social Justice as Advised		3
SUNY General Education as Advised		3
Credits		14
Spring		
AGSC 250	Application in Ag Science	3
AGRO 215	Soil Fertility & Fertilizers	3
AGSC 120	Domestic Animal Behavior	3
DANS 115	Dairy Cattle Artificial Insem	1
AGSC 137	Agricultural Statistics	3
SUNY General Education as Advised		3
Credits		16
Total Credits		60

Diverse Focus

Course	Title	Credits
Year 1		
Fall		
AGRO 115	Principles of Compost Mgmt	3
AGSC 115	Agricultural Science & Context	1
ANSC 101	Intro to Animal Science	3
AGBS 100	Agricultural Economics	3
AGNR 200	Job Prep Skills & Resources	1
SUNY General Education Communication Written and Oral as Advised		3
EDU 101	Introduction to Teaching	3
Credits		17
Spring		
AGRO 110	Soil Science	3
BIOL 102	Botany-Form Function Seed Plt	3
HORT 150	Fruit & Vegetable Production	3
SUNY General Education Diversity, Equity, Inclusion & Social Justice as Advised		3
DANS 110	Breeding Dairy Cattle	3
Credits		15
Year 2		
Fall		
AGRO 210	Field Crops	3
AGSC 132	Introduction to Precision Farming	2
PSYC 101	Introduction to Psychology	3
or SUNY General Education as Advised (ex. Humanities, Social Science, Art, History, World Languages)		
DANS 160	Introduction to Dairy Science	3
ENSC 107	Integrated Pest Management	1
SUNY General Education as Advised		3
Credits		15
Spring		
AGSC 137	Agricultural Statistics	3
AGSC 250	Application in Ag Science	3
EDU 201	Foundations of Education	3
AUTO 102	Metals	3
EDU 202	Guided Fieldwork in Education	1
ENSC 106	Pesticide Use and Handling	2
Credits		15
Total Credits		62