

Agricultural Science (BS)

To see more about what you will learn in this program, visit the Learning Outcomes website (<https://apps.oirp.ncsu.edu/pgas/>)!

In the agricultural industry, a growing need exists for professionals with extensive knowledge and experience in the agricultural sciences. Students pursuing a Bachelor of Science (B.S.) in Agricultural Science study the dynamic aspects of the food and fiber industry and specialize in two agricultural areas.

Students who major in Agricultural Science will:

- have opportunities to develop skills necessary to work independently and as part of a team, communicate effectively, solve problems, and understand basic business concepts
- select two of the following specialty areas to study: Animal Science, Agricultural Business Management, Agricultural Environmental Technology, Agroecology, Crop Science, Food Science, Horticultural Science, Poultry Science, Soil Science, and Feed Mill Management.
- graduate and succeed as teachers, extension agents, or leaders in the agricultural industry

For more information about this program, including contact information, visit our website (<https://cals.ncsu.edu/agricultural-and-human-sciences/undergraduate/#agricultural-science-major>).

Contact

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Plan Requirements

Code	Title	Hours	Counts towards
Orientation			
AEE 103	Fundamentals of Agricultural and Extension Education	1	
Communication and Social Sciences			
COM 110 or COM 112	Public Speaking Interpersonal Communication	3	
Mathematical and Natural Sciences			
MA 107	Precalculus I	3	
MA 121 or MA 131	Elements of Calculus Calculus for Life and Management Sciences A	3	
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity	4	

BIO 183	Introductory Biology: Cellular and Molecular Biology	4
CH 101 & CH 102	Chemistry - A Molecular Science and General Chemistry Laboratory	4
Physical Science Elective (p. 2)		4
Professional Content Courses		
ANS 150 & ANS 151	Introduction to Animal Science and Introduction to Animal Science Lab	4
Select one of the following Economics Electives:		3
ARE 201	Introduction to Agricultural & Resource Economics	
EC 201	Principles of Microeconomics	
EC 205	Fundamentals of Economics	
CS 213 or HS 201	Crop Science The World of Horticulture: Principles and Practices	3
SSC 200 & SSC 201	Soil Science and Soil Science Laboratory	4
Select one of the following Introductory Agricultural Electives:		3
AES 201	Shop Processes and Management	
ES 100	Introduction to Environmental Sciences	
FS 201	Introduction to Food Science	
Agricultural Extension Education		
AEE 311	Communication Methods and Media ¹	3
AEE 323	Leadership Development in Agriculture and Life Sciences ¹	3
AEE 350	Personal Leadership Development in Agriculture and Life Sciences ¹	3

AEE 360	Developing Team Leadership in Agriculture and Life Sciences ¹	3
AEE 435	Professional Presentations in Agricultural Organizations ¹	3
AEE 460	Organizational Leadership Development in Agriculture and Life Sciences ¹	3
AEE 490	Seminar in Agricultural and Extension Education	3

Restricted Elective Option 1

First of two agricultural specializations required. Select from courses in the following areas of agriculture: Animal Science, Agricultural Business Management, Agricultural Environmental Technology, Crop Science, Feed Mill Management, Food Science, Horticultural Science, Poultry Science, or Soil Science. Courses must focus on one of these agricultural disciplines. At least six (6) semester hours of course credit in this specialization must be earned in courses at the 300 level or above.

Restricted Elective Option 2

Second of two agricultural specializations required. Select from courses in the following areas of agriculture: Animal Science, Agricultural Business Management, Agricultural Environmental Technology, Crop Science, Feed Mill Management, Food Science, Horticultural Science, Poultry Science, or Soil Science. Courses must focus on one of these agricultural disciplines. At least six (6) semester hours of course credit in this specialization must be earned in courses at the 300 level or above.

GEP Courses

ENG 101	Academic Writing and Research ¹	4
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		6

GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)	2
GEP US Diversity, Equity, and Inclusion (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/)	3
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)	5
GEP Global Knowledge (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/) (verify requirement)	
Foreign Language Proficiency (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/foreign-language-proficiency/) (verify requirement)	
Free Electives	12
Total hours of free electives vary in order to allow the minimum hours required for the degree to equal 120 credit hrs.	
Total Hours	120

¹ A grade of C- or higher is required.

Physical Science Electives

Code	Title	Hours	Counts towards
CH 201	Chemistry - A Quantitative Science	3	
CH 202	Quantitative Chemistry Laboratory	1	
CH 220	Introductory Organic Chemistry	3	
CH 222	Organic Chemistry I Lab	1	
MEA 101	Geology I: Physical	3	
MEA 110	Geology I Laboratory	1	
PY 131	Conceptual Physics	4	
PY 211	College Physics I	4	

Semester Sequence

This is a sample.

First Year

Fall Semester		Hours
AEE 103	Fundamentals of Agricultural and Extension Education ¹	1
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity	4
ENG 101	Academic Writing and Research	4
MA 107	Precalculus I	3
COM 110 or COM 112	Public Speaking or Interpersonal Communication	3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1
Hours		16

Spring Semester

ANS 150 & ANS 151	Introduction to Animal Science and Introduction to Animal Science Lab	4
BIO 183	Introductory Biology: Cellular and Molecular Biology	4
MA 121 or MA 131	Elements of Calculus or Calculus for Life and Management Sciences A	3
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1
Hours		15

Second Year

Fall Semester		Hours
AEE 323	Leadership Development in Agriculture and Life Sciences	3
Introductory Agricultural Elective (p. 1)		3
CH 101 & CH 102	Chemistry - A Molecular Science and General Chemistry Laboratory	4
Free Elective		3
Hours		13

Spring Semester

AEE 350	Personal Leadership Development in Agriculture and Life Sciences	3
Economics Elective (p. 1)		3
Physical Science Elective (p. 1) ³		4
CS 213 or HS 201	Crop Science or The World of Horticulture: Principles and Practices	3
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
Hours		16

Third Year

Fall Semester		Hours
AEE 311	Communication Methods and Media	3
SSC 200	Soil Science	3
SSC 201	Soil Science Laboratory	1
Agricultural Specialization I Course (p. 1)		3

GEP US Diversity, Equity, and Inclusion (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/)		3
Free Elective ²		3

Hours 16

Spring Semester

AEE 435	Professional Presentations in Agricultural Organizations	3
Agricultural Specialization I Course (p. 1)		3
Agricultural Specialization II Course (p. 1)		3
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		3
Free Elective ²		3

Hours 15

Fourth Year

Fall Semester		Hours
AEE 360	Developing Team Leadership in Agriculture and Life Sciences	3
Agricultural Specialization I Course (p. 1)		3
Agricultural Specialization II Course (p. 1)		3
Agricultural Specialization II Course (p. 1)		3
Free Elective ²		3
Hours		15

Spring Semester

AEE 460	Organizational Leadership Development in Agriculture and Life Sciences	3
AEE 490	Seminar in Agricultural and Extension Education	3
Agricultural Specialization I Course (p. 1)		3
Agricultural Specialization II Course (p. 1)		3
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		2

Hours 14

Total Hours 120

¹ AEE 103 Fundamentals of Agricultural and Extension Education is the preferred orientation course. ALS 103 Freshman Transitions and Diversity in Agriculture & Life Sciences is accepted for transfer students.

² Total hours of free electives vary in order to allow the minimum hours required for the degree to equal 120 credit hrs.