

Agricultural Science (BS): Online

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 pursue two agricultural specializations.

Students who major in Agricultural Science will:

- develop skills for working independently and as part of a team, communicate effectively, solve problems, and understand basic business concepts.
- pursue two of the following specializations: Animal Science, Agricultural Business Management, Agricultural Environmental Technology, Agroecology, Crop Science, Food Science, Horticultural Science, Poultry Science, Soil Science, and Feed Mill Management.
- succeed as communicators, extension agents, and leaders in the agricultural industry.

For more information about this program, 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	
or ALS 303	Transfer Transitions and Diversity in Agriculture & Life Sciences		
Communication and Social Sciences			
COM 110	Public Speaking	3	
or COM 112	Interpersonal Communication		
Mathematical and Natural Sciences			
MA 107	Precalculus I	3	
MA 131	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	
Natural Science Elective (p. 2)		4	
Professional Content Courses			
ANS 150	Introduction to Animal Science	3	
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	Crop Science	3	
or HS 201	The World of Horticulture: Principles and Practices		
SSC 200	Soil Science	3	
ES 100	Introduction to Environmental Sciences	3	
FS 201	Introduction to Food Science	3	
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
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AEE 490	Seminar in Agricultural and Extension Education	3
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Restricted Elective Option 1

First of two agricultural specializations required. Select from courses in the following areas of agriculture: Animal Science, Agricultural Business Management, Crop Science, 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.	12
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Restricted Elective Option 2

First of two agricultural specializations required. Select from courses in the following areas of agriculture: Animal Science, Agricultural Business Management, Crop Science, 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.	12
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GEP Courses

ENG 101	Academic Writing and Research ¹	4
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GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)	6
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GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)	2
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GEP Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/) (Humanities/Social Sciences/Visual and Performing Arts)	3
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GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)	5
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GEP Elective (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)	
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GEP Global Knowledge (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/) (verify requirement)	
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World Language Proficiency (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/world-language-proficiency/) (verify requirement)	
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Free Electives	11
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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
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¹ A grade of C- or higher is required.

Natural Science Electives

Code	Title	Hours	Counts towards
ANS 215	Agricultural Genetics	3	
GN 301	Genetics in Human Affairs	3	
MEA 100	Earth System Science: Exploring the Connections	4	
MEA 101	Geology I: Physical	3	
MEA 110	Geology I Laboratory	1	
MEA 130	Introduction to Weather and Climate	3	
MEA 135	Introduction to Weather and Climate Laboratory	1	
PY 131	Conceptual Physics	4	
PY 211	College Physics I	4	

First Year

Fall Semester		Hours
AEE 103 or ALS 303	Fundamentals of Agricultural and Extension Education ¹ or Transfer Transitions and Diversity in Agriculture & Life Sciences	1
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity (May not be offered online; Can take at a Community College)	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		
BIO 183	Introductory Biology: Cellular and Molecular Biology	4
MA 131	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
Introductory Agricultural Elective (p. 1)		3
Hours		14
Summer		
ANS 150	Introduction to Animal Science	3
Hours		3
Second Year		
Fall Semester		
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 (CH 102 may not be offered online, Can take course at a Community College)	4
Free Elective		3
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
Hours		16
Spring Semester		
AEE 350	Personal Leadership Development in Agriculture and Life Sciences	3
Economics Elective (p. 1)		3
Natural Science Elective (p. 1) ³		4
CS 213 or HS 201	Crop Science or The World of Horticulture: Principles and Practices	3
Hours		13

Third Year

Fall Semester		Hours
AEE 311	Communication Methods and Media	3
SSC 200	Soil Science	3
Agricultural Specialization I Course (p. 1)		3
GEP Elective (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)		3
Free Elective ²		3
Hours		15
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		
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		2
Hours		14
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.

Career Opportunities**Career Titles**

- Agricultural Inspector
- Animal Breeder
- Animal Husbandry Worker Supervisor

- Aquaculture Specialist
- Bank and Branch Managers
- Buyer
- Crop Workers Supervisor
- Farm and Ranch Manager
- Farm Management Advisor
- Farm Products Purchasing Agent
- Farmers and Ranchers
- Fish Hatchery Manager
- Food & Drug Inspector
- Greenhouse and Nursery Manager
- Horticultural Worker Supervisor
- Industrial Production Managers
- Marketing Managers
- Purchasing Manager
- Sales Representative (Agricultural Products)
- Winemaker / Vinter

Learn More About Careers

NCcareers.org (<https://nccareers.org/>)

Explore North Carolina's central online resource for students, parents, educators, job seekers and career counselors looking for high quality job and career information.

Occupational Outlook Handbook (<https://www.bls.gov/ooh/>)

Browse the Occupational Outlook Handbook published by the Bureau of Labor Statistics to view state and area employment and wage statistics. You can also identify and compare similar occupations based on your interests.

Career One Stop Videos (<https://www.careeronestop.org/>)

View videos that provide career details and information on wages, employment trends, skills needed, and more for any occupation. Sponsored by the U.S. Department of Labor.

Focus 2 Career Assessment (<https://careers.dasa.ncsu.edu/explore-careers/career-assessments/>) (NC State student email address required)

This career, major and education planning system is available to current NC State students to learn about how your values, interests, competencies, and personality fit into the NC State majors and your future career. An NC State email address is required to create an account. Make an appointment with your career counselor (<https://careers.dasa.ncsu.edu/about/hours-appointments/>) to discuss the results.

Focus 2 Apply Assessment (Available to prospective students)

A career assessment tool designed to support prospective students in exploring and choosing the right major and career path based on your unique personality, interests, skills and values. Get started with Focus 2 Apply and see how it can guide your journey at NC State.

AgCareers.com (<https://www.agcareers.com/>)