

Agricultural Science (BS)

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	
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 or ST 311	Elements of Calculus Calculus for Life and Management Sciences A Introduction to Statistics	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
Professional Content Courses		
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 Animal/Poultry Science Courses:		4
ANS 150 & ANS 151	Introduction to Animal Science and Introduction to Animal Science Lab	
PO 201 & PO 202	Poultry Science and Production and Poultry Science and Production Laboratory	
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	
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 and Extension Education Required Courses		
AEE 230	Introduction to Cooperative Extension ¹	3
AEE 311	Communication Methods and Media ¹	3

AEE 323	Leadership Development in Agriculture and Life Sciences ¹	3
AEE 490	Seminar in Agricultural and Extension Education ¹	3

Agricultural and Extension Education Advised Electives

Select 15 hours of Agricultural and Extension Education Advised Electives 15

AEE 325	Planning and Delivering Non-Formal Education	
AEE 326	Teaching Diverse Learners in AED	
AEE 350	Personal Leadership Development in Agriculture and Life Sciences	
AEE 360	Developing Team Leadership in Agriculture and Life Sciences	
AEE 423	Practicum in Agricultural Extension/ Industry	
AEE 433	Leadership and Management of Volunteers in Agricultural and Extension Education	
AEE 435	Professional Presentations in Agricultural Organizations	
AEE 460	Organizational Leadership Development in Agriculture and Life Sciences	
AEE 491	Seminar in Agricultural Education	

Restricted Elective Option 1

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 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

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 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 Elective (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)		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 (verify requirement)		

Free Electives	10
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.

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
COM 110 or COM 112	Public Speaking or Interpersonal Communication	3
ENG 101	Academic Writing and Research	4
MA 107	Precalculus I	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 or PO 201	Introduction to Animal Science or Poultry Science and Production	3
ANS 151 or PO 202	Introduction to Animal Science Lab or Poultry Science and Production Laboratory	1
BIO 183	Introductory Biology: Cellular and Molecular Biology	4
MA 121 or MA 131 or ST 311	Elements of Calculus or Calculus for Life and Management Sciences A or Introduction to Statistics	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
AEE 230	Introduction to Cooperative Extension	3
AEE 311	Communication Methods and Media	3
Hours		16

Spring Semester

Agricultural and Extension Education Advised Elective (p. 1)		3
Economics Elective (p. 1)		3
Free Elective ²		3
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		15

Third Year

Fall Semester

SSC 200	Soil Science	3
SSC 201	Soil Science Laboratory	1
Agricultural Specialization I Course (p. 1)		3
GEP Elective (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)		3
Agricultural and Extension Education Advised Elective (p. 1)		3
Hours		13

Spring Semester

Agricultural and Extension Education Advised Elective (p. 1)		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

Agricultural and Extension Education Advised Elective (p. 1)		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		4
Hours		16

Spring Semester

Agricultural and Extension Education Advised Elective (p. 1)		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 and ALS 303 Transfer Transitions and Diversity in Agriculture & Life Sciences are acceptable.

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

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/>)

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 (<https://www.focus2career.com/Portal/Register.cfm?SID=1929>) (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