

Agroecology & Sustainable Food Systems (BS): Community Food Systems Concentration

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

Bachelor of Science in *Plant and Soil Sciences* degree is a flexible program that allows students to choose from a wide range of programs, based on their personal interests and career goals. Students can select a concentration from six areas of study including Agroecology, Agronomic Business, Agronomic Science, Crop Biotechnology, Crop Production, and Soil Science. Each concentration provides a strong science-based foundation as well as technical and supporting courses related to each individual discipline.

Plan Requirements

Agroecology & Sustainable Food Systems (BS): Community Food Systems Concentration: 120 Total Units

Code	Title	Hours
Orientation		
ALS 103	Freshman Transitions and Diversity in Agriculture & Life Sciences	1
or ALS 303	Transfer Transitions and Diversity in Agriculture & Life Sciences	
Mathematics & Natural Sciences		
MA 107	Precalculus I	3
Select one of the following:		3
MA 121	Elements of Calculus	
MA 131	Calculus for Life and Management Sciences A	
MA 141	Calculus I	
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity	4
BIO 183	Introductory Biology: Cellular and Molecular Biology	4
or PB 200	Plant Life	
CH 101	Chemistry - A Molecular Science	3
CH 102	General Chemistry Laboratory	1
AEC 360	Ecology	4
Communication/Advanced Writing		
COM 110	Public Speaking	3
or COM 112	Interpersonal Communication	
Select one of the following:		3
AEE 311	Communication Methods and Media	
ENG 331	Communication for Engineering and Technology	
ENG 332	Communication for Business and Management	
ENG 333	Communication for Science and Research	

Major Requirements

CS 230	Introduction to Agroecology	3
CS 415	Integrated Pest Management	3
CS 430	Advanced Agroecology	4
HS 410	Community Food Systems	3
HS 480	Sustainable Food Production (capstone)	1
ARE 201	Introduction to Agricultural & Resource Economics	3
SSC 200	Soil Science	3
SSC 201	Soil Science Laboratory	1
STS 323	World Population and Food Prospects	3
SSC 427	Biological Approaches to Sustainable Soil Systems	3
or SSC 332	Environmental Soil Microbiology	
SOC 241	Sociology of Agriculture and Rural Society	3
SSC 428	Service-Learning in Urban Agriculture Systems	1
Select one of the following:		3
IDS 201	Environmental Ethics	
IDS 211	Eating through American History	
IDS 303	Humans and the Environment	
Select one of the following:		3
CSSC 492	Professional Internship Experience in Crop and Soil Sciences	
CSSC 493	Research Experience in Crop and Soil Sciences	
HS 492	Horticulture Internship	
HS 493	Research Experience in Horticultural Science	
CSSC 290	Professional Development in Crop & Soil Sciences	1
Concentration Electives		
Foundational Electives (p. 2)		11
Restricted Electives (p. 2)		21
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 Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/) (Humanities/Social Sciences/Visual and Performing Arts)		3
GEP U.S. Diversity (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/) (verify requirement)		
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		
Free Electives (12 Hr S/U Lmt)		6
Total Hours		120

¹ A grade of C- or higher is required.

² Students should consult their academic advisors to determine which courses fill this requirement.

Foundational Electives

Code	Title	Hours
Group I (Max: 4 Units)		
NTR 220	Food and Culture	3
NTR 420	Applied Nutrition Education	3
SOC 311	Community Relationships	3
Group II (Max: 4 Units)		
FS 301	Introduction to Human Nutrition	3
GPH 201	Fundamentals of Global Public Health	3
NTR 301	Introduction to Human Nutrition	3
STS 214	Introduction to Science, Technology, and Society	3
Group III (Max: 4 Units)		
AEE 206	Introduction to Teaching Agriculture	3
AEE 230	Introduction to Cooperative Extension	3
AEE 311	Communication Methods and Media	3
NPS 340	Fundamentals of Grant Development for Nonprofits	3

Restricted Electives

Code	Title	Hours
AEE 311	Communication Methods and Media	3
AEE 323	Leadership Development in Agriculture and Life Sciences	3
AEE 325	Planning and Delivering Non-Formal Education	3
ARE 301	Intermediate Microeconomics	3
ARE 433	U.S. Agricultural Policy	3
EC 301	Intermediate Microeconomics	3
HS 431	Vegetable Production	4
HS 432	Introduction to Permaculture	3
HS 532	Introduction to Permaculture	3
IDS 303	Humans and the Environment	3
NR 303	Humans and the Environment	3
PB 321	Introduction to Whole Plant Physiology	3
PB 345	Economic Botany	3
PB 346	Economic Botany Lab	1
SOC 342	International Development	3
SOC 350	Food and Society	3
SOC 402	Urban Sociology	3

Semester Sequence

Course	Title	Hours
First Year		
Fall Semester		
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity	4
ALS 103 or ALS 303	Freshman Transitions and Diversity in Agriculture & Life Sciences or Transfer Transitions and Diversity in Agriculture & Life Sciences	1
ENG 101	Academic Writing and Research	4
MA 107	Precalculus I	3

Foundation Elective		3
	Hours	15

Spring Semester

BIO 183 or PB 200	Introductory Biology: Cellular and Molecular Biology or Plant Life	4
Select one of the following:		3-4
MA 121	Elements of Calculus	
MA 131	Calculus for Life and Management Sciences A	
MA 141	Calculus I	
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		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	14-15

Second Year

Fall Semester

CSSC 290	Professional Development in Crop & Soil Sciences	1
CH 101	Chemistry - A Molecular Science	3
CH 102	General Chemistry Laboratory	1
CS 230	Introduction to Agroecology	3
Select one of the following:		3
IDS 201	Environmental Ethics	
IDS 211	Eating through American History	
IDS 303	Humans and the Environment	
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

Spring Semester

ARE 201	Introduction to Agricultural & Resource Economics	3
AEC/PB 360	Ecology	4
SSC 200	Soil Science	3
SSC 201	Soil Science Laboratory	1
Foundation Elective		4
	Hours	15

Third Year

Fall Semester

SOC 241	Sociology of Agriculture and Rural Society	3
SSC 427 or SSC 332	Biological Approaches to Sustainable Soil Systems or Environmental Soil Microbiology	3
CS/HS 410	Community Food Systems	3
Foundation Elective		4
Select one of the following:		3

ENG 331	Communication for Engineering and Technology	
ENG 332	Communication for Business and Management	
ENG 333	Communication for Science and Research	
AEE 311	Communication Methods and Media	
Hours		16
Spring Semester		
CS 430	Advanced Agroecology	4
SSC/HS 428	Service-Learning in Urban Agriculture Systems	1
STS 323	World Population and Food Prospects	3
Restricted Elective		3
Restricted Elective		3
Hours		14
Fourth Year		
Fall Semester		
CS/HS 480	Sustainable Food Production (capstone)	1
Restricted Elective		3
Restricted Elective		3
Restricted Elective		3
Free Elective		3
CSSC 492 or CSSC 493	Professional Internship Experience in Crop and Soil Sciences or Research Experience in Crop and Soil Sciences	3
Hours		16
Spring Semester		
CS 415	Integrated Pest Management	3
GEP Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)		3
Restricted Elective		3
Restricted Elective		3
Free Elective		3
Hours		15
Total Hours		120-121

- Plant Breeder
- Precision Agriculture Specialist
- Real Estate Manager
- Research Station Manager
- Restoration Specialist
- Seed Production Agronomist
- Soil Scientist

Learn more about future job prospects, representative salaries, and major employers for each of the above listed careers at go.ncsu.edu/careers (<http://go.ncsu.edu/careers/>)

Career Opportunities

The breadth and depth of education and experiences you will gain from our department will set you on a path toward a rewarding career in one of the following specialties:

- Agronomist
- Agronomy Sales and Management
- Athletic Turf Manager
- Crop Advisor
- Conservationist
- Crops Systems Specialist
- Ecologist
- Environmental Scientist and Specialist
- Extension Agent
- Golf Course Superintendent
- Hydrologist
- Nutrient Management/ Waste Management Specialist