

Crop and Soil Sciences (BS): Turfgrass Science

The Bachelor of Science in Crop and Soil Sciences with a concentration in *Turfgrass Science* has been voted #1 in the US by TurfNet Magazine. Why? Because we have the best turfgrass scientists and extension specialists teaching our classes, because we have a state of the art teaching field lab for hands-on learning, and because our program has classes that cover the basics of environmentally sound turfgrass management. Our graduates find great careers in golf course and athletic field management, home and industrial lawn businesses, sod production, recreational park turf management, agri-business management and agri-business sales. Learn more about Turfgrass Science (<http://go.ncsu.edu/turf-ebook/>).

Contact Person

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Plan Requirements

Code	Title	Hours
Orientation		
ALS 103	First-year Success in Agriculture and Life Sciences	1
or ALS 303	Transfer Success in Agriculture and Life Sciences	
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	
Mathematics & Natural Sciences		
MA 121	Elements of Calculus	3
ST 311	Introduction to Statistics	3
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity	4
BIO 183	Introductory Biology: Cellular and Molecular Biology	4
CH 101	Chemistry - A Molecular Science	3
CH 102	General Chemistry Laboratory	1
CH 220	Introductory Organic Chemistry	3
CH 222	Organic Chemistry I Lab	1
PB 200	Plant Life	4
PB 321	Introduction to Whole Plant Physiology	3
PB 360	Ecology	4
PY 131	Conceptual Physics	4
Required Courses within Major		
ARE 201	Introduction to Agricultural & Resource Economics	3

CS 200	Introduction to Turfgrass Management ¹	4
CS 211	Plant Genetics	3
CS 400	Turf Cultural Systems	3
CS 414	Weed Science	4
CS 465	Turf Management Systems and Environmental Quality	3
CS 470	Advanced Turfgrass Pest Management	2
CSSC 290	Professional Development in Crop & Soil Sciences	1
HS 471	Landscape Ecosystem Management	4
PP 315	Principles of Plant Pathology	4
SSC 200	Soil Science	3
SSC 201	Soil Science Laboratory	1
SSC 341	Soil Fertility and Nutrient Management	3
SSC 342	Soil and Plant Nutrient Analysis	1
SSC 461	Soil Physical Properties and Plant Growth	3

Concentration Electives

Economics, Management & Policy Electives (p. 1)		3
Experiential Learning (select one):		3
CSSC 492	Professional Internship Experience in Crop and Soil Sciences	
CSSC 493	Research Experience in Crop and Soil Sciences	

GEP Courses

ENG 101	Academic Writing and Research ¹	4
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		6
GEP Social Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/)		3
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)		
GEP Foundations of American Democracy (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-fad/) (verify requirement)		
World Language Proficiency (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/world-language-proficiency/) (verify requirement)		

Free Electives

Free Electives (12 Hr S/U Lmt)	5
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Total Hours	120
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Economics, Management & Policy Electives

Code	Title	Hours
ARE 215	Small Business Accounting	3
ARE 301	Intermediate Microeconomics	3
ARE 304	Agribusiness Management	3
ARE 306	Agricultural Law	3
ARE 309	Environmental Law & Economic Policy	3

ARE 312	Agribusiness Marketing	3
ARE 332	Human Resource Management for Agribusiness	3
BUS 225	Personal Finance	3
BUS 320	Financial Management	3
BUS 340	Information Systems Management	3
BUS 420	Financial Management of Corporations	3
CS 418/518	Introduction to Regulatory Science in Agriculture	3
CS 428/528	Advanced Regulatory Science in Agriculture	3
PS 320	U.S. Environmental Law and Politics	3

Semester Sequence

First Year

Fall Semester		Hours
ALS 103 or ALS 303	First-year Success in Agriculture and Life Sciences or Transfer Success in Agriculture and Life Sciences	1
BIO 181	Introductory Biology: Ecology, Evolution, and Biodiversity	4
ENG 101	Academic Writing and Research	4
MA 121	Elements of Calculus	3
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
CSSC 290	Professional Development in Crop & Soil Sciences	1
Hours		16

Spring Semester

CH 101	Chemistry - A Molecular Science	3
CH 102	General Chemistry Laboratory	1
PB 200	Plant Life	4
ST 311	Introduction to Statistics	3
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		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
BIO 183	Introductory Biology: Cellular and Molecular Biology	4
CS 200	Introduction to Turfgrass Management ¹	4
PB 360	Ecology	4
ARE 201	Introduction to Agricultural & Resource Economics	3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1
Hours		16

Spring Semester

CH 220	Introductory Organic Chemistry	3
CH 222	Organic Chemistry I Lab	1

COM 110 or COM 112	Public Speaking or Interpersonal Communication	3
SSC 200	Soil Science ¹	3
SSC 201	Soil Science Laboratory ¹	1
Economics, Management and Policy Elective (p. 1)		3
Hours		14

Third Year

Fall Semester		Hours
PP 315	Principles of Plant Pathology	4
SSC 341	Soil Fertility and Nutrient Management	3
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
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	
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		2
Hours		15

Spring Semester

PB 321	Introduction to Whole Plant Physiology	3
CS 211	Plant Genetics	3
CS 400	Turf Cultural Systems ¹	3
PY 131	Conceptual Physics	4
SSC 342	Soil and Plant Nutrient Analysis	1
Hours		14

Fourth Year

Fall Semester		Hours
HS 471	Landscape Ecosystem Management	4
SSC 461	Soil Physical Properties and Plant Growth	3
CS 414	Weed Science	4
CS 465	Turf Management Systems and Environmental Quality	3
Experimental Learning Elective (p. 1)		3
Hours		17

Spring Semester

CS 470	Advanced Turfgrass Pest Management	2
Free Elective		5
GEP Social Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-social-sciences/)		3
GEP US Diversity, Equity, and Inclusion (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/)		3
Hours		13
Total Hours		120

¹ A grade of C- or better is required for CS 200 Introduction to Turfgrass Management, CS 400 Turf Cultural Systems, SSC 200 Soil Science, SSC 201 Soil Science Laboratory.

Career Opportunities

Career Titles

- Agronomist
- Agronomy Sales and Management
- Athletic Turf Manager
- Extension Agent
- Food & Drug Inspector
- Golf Course Superintendent
- Landscape Architect
- Restoration Specialist
- Seed Production Agronomist
- Soil Conservation Technician
- Soil Conservationist
- Soil Engineer
- Soil Scientist
- Winemaker / Vintner

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 unique personality, interests, skills and values. Get started with Focus 2 Apply and see how it can guide your journey at NC State.