

Crop and Soil Sciences (BS): Turfgrass Science

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

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/>).

Plan Requirements

Code	Title	Hours	Counts towards
Orientation			
ALS 103	Freshman Transitions and Diversity in Agriculture & Life Sciences	1	
or ALS 303	Transfer Transitions and Diversity in Agriculture & 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. 2)		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 Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/) (Humanities/Social Sciences/Visual and Performing Arts)		3
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		5
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)	5
Total Hours	120

Economics, Management & Policy Electives

Code	Title	Hours	Counts towards
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

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First Year

Fall Semester		Hours
ALS 103 or ALS 303	Freshman Transitions and Diversity in Agriculture & Life Sciences or Transfer Transitions and Diversity in Agriculture & 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**

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 Public Speaking or COM 112 or Interpersonal Communication	3
SSC 200 Soil Science ¹	3
SSC 201 Soil Science Laboratory ¹	1
Economics, Management and Policy Elective (p. 2)	3
Hours	14

Third Year**Fall Semester**

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
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Hours	15
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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
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Fourth Year**Fall Semester**

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
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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 Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/) (Humanities/Social Sciences/Visual and Performing Arts)	3

Hours	13
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Total Hours	120
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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

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
- Extension Agent
- Golf Course Superintendent
- Restoration Specialist
- Seed Production Agronomist

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/>)