

# Soil Science (Certificate)

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

The Undergraduate Certificate in Soil Science enables students to obtain the course credit hours in soil science necessary for advancement in soil related careers. To become a Soil Scientist in the U.S. Federal Government, the Office of Personnel Management requires 15 credit hours in subjects such as soil genesis, pedology, soil chemistry, soil physics, and soil fertility. In states like North Carolina and others with a soil scientist licensing program, 15 credit hours of soil science related coursework is required to qualify for the licensing exam. Nationally, to become a Professional Soil Scientist certified by the Soil Science Society of America, individuals must have completed 15 course credit hours in soil science or a related area. Those who complete this program will meet the coursework requirements for all three career advancement opportunities.

You can learn more about North Carolina's licensed soil scientist program at <https://ncblss.wordpress.ncsu.edu/>. To learn about the national certification program, visit <http://soils.org/certifications/become-certified> (<http://soils.org/certifications/become-certified/>)

This program may be completed totally online. For more information about Distance Education [Click here] (<http://distance.ncsu.edu/programs/university-certificate-in-soil-science/>)

## Program Coordinator

Dr. David Crouse  
Undergraduate Teaching Coordinator and Director of Distance Education Programs

## Admissions Requirements

This program will be open to undergraduate students and those pursuing continuing education credits. It will also be open to students outside of North Carolina State University. A Bachelor of Science is required for admission into this program.

## Registration Information

Undergraduate Programs Office  
Crop & Soil Sciences Department  
2234 Williams Hall  
Campus Box 7620  
919-515-5820  
[cropsoil-undergraduate-office@ncsu.edu](mailto:cropsoil-undergraduate-office@ncsu.edu)

## Academic Structure

Term Effective: 1/2017  
Plan Code: 11SSCTU, 32SSCTU  
CIP Code: 01.1201  
Description: Undergraduate Certificate in Soil Science  
Offered via on-campus and Distance Education (<http://distance.ncsu.edu/programs/university-certificate-in-soil-science/>) format

## Plan Requirements

Prerequisites:

To pursue the certificate, students must have the following training in basic sciences:

- 2 semesters of chemistry
- 1 semester of physics
- 1 semester of biology
- mathematics through algebra and trigonometry

Code	Title	Hours
<b>Required Courses</b> <sup>1</sup>		
SSC 200	Soil Science <sup>2</sup>	3
<b>Elective Courses</b> <sup>2</sup>		
Select four of the following:		12
SSC 341	Soil Fertility and Nutrient Management <sup>2</sup>	
	or SSC 541 Soil Fertility	
SSC 470/570	Wetland Soils <sup>2</sup>	
SSC 532	Soil Microbiology <sup>2</sup>	
	or SSC 332 Environmental Soil Microbiology	
SSC 421	Role of Soils in Environmental Management	
SSC 440/540	Geographic Information Systems (GIS) in Soil Science and Agriculture <sup>2</sup>	
SSC 442	Soil and Environmental Biogeochemistry	
SSC 551	Soil Morphology, Genesis and Classification <sup>2</sup>	
	or SSC 452 Soil Classification	
SSC 455	Soils, Environmental Quality and Global Challenges	
SSC 511	Soil Physics <sup>2</sup>	
	or SSC 461 Soil Physical Properties and Plant Growth	
CSSC 495	Special Topics in Crop and Soil Sciences	
SSC 562	Environmental Applications Of Soil Science <sup>2</sup>	
SSC 590	Special Problems	
Total Hours		15

<sup>1</sup> The required courses are available on-campus and via distance education. Prerequisites may be required in some courses. Students should contact instructors before enrolling to discuss eligibility as needed.

<sup>2</sup> Available through Distance Education and on-campus. The 500-level courses are graduate level courses.

A grade of C (2.0) or higher in each course is required.