

Soil Science (Certificate)

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 soil science coursework requirement for all three career advancement opportunities.

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

This program may be completed totally online. For more information, visit our Distance Education (<https://online-distance.ncsu.edu/program/university-certificate-in-soil-science/>) website.

Program Coordinator

Dr. David Crouse
Director of Undergraduate Programs and Coordinator of Distance Education Programs
Department of Crop and Soil Sciences

Admissions Requirements

This program is open to current undergraduate students and those outside of North Carolina State University pursuing continuing education credits.

Contact Person

Undergraduate Programs Office
Crop & Soil Sciences Department
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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 (<https://online-distance.ncsu.edu/program/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
Required Courses ¹		
SSC 200	Soil Science ²	3
Elective Courses		
Select four of the following:		12
SSC 341	Soil Fertility and Nutrient Management ²	
or SSC 541	Soil Fertility	
SSC 470/570	Wetland Soils ²	
SSC 532	Soil Microbiology ²	
or SSC 332	Environmental Soil Microbiology	
SSC 440/540	Geographic Information Systems (GIS) in Soil Science and Agriculture	
SSC 442	Soil and Environmental Biogeochemistry	
SSC 551	Soil Morphology, Genesis and Classification ²	
or SSC 452	Soil Classification	
SSC 455	Soils, Environmental Quality and Global Challenges	
SSC 511	Soil Physics ²	
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 ²	
SSC 590	Special Problems in Soil Science	
Total Hours		15

¹ 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.

² 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.