Soil Science

Description

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 http://ncblss.org. To learn about the national certification program, visit http://soils.org/certifications/become-certified

This program may be completed totally online. For more information about Distance Education [Click here]

Program Coordinator

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

Curriculum

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 trionometry

Required Courses: 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.

- SSC 200* Soil Science (3 cr)

Elective Courses*: (Select four of the following)

- SSC 341* Soil Fertility and Fertilizers (3 cr) or SSC 541* Soil Fertility (3 cr)

- SSC 470*/570* Wetland Soils (3 cr)
- SSC 332 Environmental Soil Microbiology (3 cr) **or** SSC 532* Soil Microbiology (4 cr)
- SSC 421 Role of Soils in Environmental Management (3 cr)
- SSC 440*/540* Geographic Information Systems [GIS] in Soil Science and Agriculture (3 cr)
- SSC 442 Soil and Environmental Biogeochemistry (3 cr)
- SSC 452 Soil Classification (4 cr) **or** SSC 551* Soil Morphology, Genesis, Classification (3 cr)
- SSC 455 Soils, Environmental Quality and Global Challenges (3 cr)

- SSC 461 Soil Physical Properties and Plant Growth (3 cr) **or** SSC 511* Soil Physics (4 cr)
- SSC 495 Special Topics in Soil Science (var cr)
- SSC 562* Environmental Applications of Soil Science (3 cr)
- SSC 590 Special Topics in Soil Science (var cr)

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

*****Available through Distance Education and on-campus. The 500-level courses are graduate level courses.

Total Credit Hours Required: 15

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.

Plan of Study

While not a requirement of this certificate, a suggested plan of study that best prepares the student for licensing and certification exams includes the following courses in addition to SSC 200:

• SSC 341 or SSC541
• SSC 332 or SSC 532
• SSC 452 or SSC 551
• SSC 461 or SSC 511
• SSC 470 or SSC 570

Registration Information

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 format