Soil scientists study and manage land and water resources to protect the environment and enhance agricultural productivity. Graduate education opportunities in Soil Science at NC State prepares students for careers with public and private organizations in soil, agricultural, environmental, and natural resource sciences. Our graduates find employment opportunities with private sector firms, government organizations, academia, and entrepreneurship.

You will have the opportunity to study and do research with world-class faculty in outstanding laboratory and field facilities. Graduate students may specialize in the following sub-disciplines: soil physics; soil chemistry; soil microbiology and biochemistry; soil fertility and plant nutrition; soil genesis, morphology and classification; and soil, water and land management and conservation. Students can also incorporate other disciplines into their work, presenting outstanding opportunities to focus on issues of interest.

Admission Requirements
A minimum of a 3.0 GPA at the baccalaureate (BS) or master’s (MS) level is required. However, exceptions may be made for master’s applicants with a very strong GPA in science classes, an exceptional track record in their final two years, or with substantial post-baccalaureate work experience. Students accepted will typically have a BS or MS degree in Soil Science, or closely related fields, with strong preparation in the biological and physical sciences. Research experience is helpful. The Graduate Record Exam (GRE) is not required for application or admission to Soil Science graduate programs. International students must demonstrate proficiency in English prior to admission.

To ensure that all graduates are well founded in all aspects of Soil Sciences, students are expected to demonstrate competence in the following sub-disciplines (four for Master’s and all five for Ph.D. programs): soil physics, soil chemistry, soil microbiology, soil genesis and classification, and soil fertility.

Degrees
• Soil Science (MR) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/soil-science/soil-science-mr/)
• Soil Science (MS) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/soil-science/soil-science-ms/)
• Soil Science (PhD) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/soil-science/soil-science-phd/)
• Soil Science (Minor) (http://catalog.ncsu.edu/graduate/agriculture-life-sciences/soil-science/soil-science-minor/)

Faculty
Full Professors
Aziz Amoozegar
Area of Research: Environmental Soil Physics
Stephen W. Broome
Area of Research: Environmental Soil Science
David A. Crouse
Area of Research: Soil Science Education
Owen W. Duckworth

Area of Research: Soil Biogeochemistry
Alan J. Franzluebbers
Area of Research: Soil Ecology and Management
John L. Havlin
Area of Research: Soil Fertility
Joshua L. Heitman
Area of Research: Soil Physics & Hydrology
Richard A. McLaughlin
Area of Research: Urban Soil & Water Management
Michael D. Mullen
Area of Research: Soil Biology & Soil Science Education
Deanna L. Osmond
Area of Research: Soil Fertility & Watershed Management
Wei Shi
Area of Research: Soil Microbiology & Ecology
Michael J. Vepraskas
Area of Research: Wetland Soils & Pedology

Associate Professors
Alexandria K. Graves
Area of Research: Soil Microbiology

Assistant Professors
Kevin Garcia
Area of Research: Plant-Microbe Interactions & Nutrient Transport
Terrence G. Gardner
Area of Research: Soil & Environmental Microbial Ecology
Luciano C. Gatiboni
Area of Research: Soil Fertility & Nutrient Management
Amy M. Johnson
Area of Research: Soil Science
Stephanie B. Kulesza
Area of Research: Nutrient Management and Animal Waste
Matthew C. Ricker
Area of Research: Pedology
Alex L. Woodley
Area of Research: Sustainable Agricultural Systems

Practice/Research/Teaching Professors
Robert E. Austin
Area of Research: Geospatial Information and Analytics in Soils, Agriculture and Environmental Science

Emeritus Faculty
Stanley W. Buol