MAJOR IN SOIL AND CROP SCIENCES, SOIL SCIENCE AND ENVIRONMENTAL SOLUTIONS CONCENTRATION

Soils feed the world, provide clean water, and represent one of the most important scalable solutions to climate change. Soils are also the most biodiverse habitats on earth, containing a vast array of microbes and a multi-level food web. Soil scientists are on the front-lines of fighting climate change, developing resilient food production systems, and reversing environmental degradation through restoration and regeneration of soils.

The Soil and Crops Sciences major with a concentration in Soil Science and Environmental Solutions applies fundamental principles and techniques in soil science to solving complex, real-world environmental sustainability challenges. Students learn how the interactions of plants, the microbiome, and the soil food web with the soil's physical and chemical environment support life on earth, improve water quality, and impact our climate. Our students receive hands-on interdisciplinary training from world leaders in soil-related research, so they are equipped to be change-makers, applying cutting-edge science to real-world challenges.

Exciting careers await our graduates in rapidly emerging fields including sustainability, AgriTech, consulting in institutions ranging from academia, startups, industry, government, and non-profits.

Learning Objectives

Upon successful completion of this concentration, students will be able to:

1. Demonstrate technical competency in the fundamental principles of soils and agroecosystems and synthesize information from field and laboratory observations in meeting identified needs.
2. Identify, formulate, and solve complex soil and agroecosystem sustainability problems by applying quantitative approaches and principles of soil and plant functionality across varying environments.
3. Collaborate with diverse teams to set goals and expectations, foster individual strengths and leadership, and encourage creativity and inclusivity in solving problems.