Earth and Environmental Sciences, BS

Earth and environmental sciences majors study the geologic, hydrologic, atmospheric, and biotic systems that make up the dynamic Earth, with an emphasis on local and global interactions between these systems in the present and over deep time. The major comprises three tracks: earth and planetary science, environmental bioscience, and environmental geoscience. Within these tracks, students examine planetary and ecological processes emphasizing how planets, their environments, and life have evolved and continue to evolve; how recent human actions interact with surface processes to support or distress living organisms, air, and water; how altered ecosystem structure and function impacts population and community dynamics across diverse spatial and temporal scales; and how past and present changes within the Earth's systems, both big and small, may inform expectations around, and solutions to, future change. The integrated biological, chemical, physical, and geological components of the degree program offer students flexibility and exposure to the entire geoscience and environmental discipline while at the university and prepare them for either employment directly following graduation or continuation to graduate school.

Learning Outcomes

Graduates will:

- understand planetary and ecosystem processes across diverse spatial and temporal scales;
- understand past and present interactions within the Earth-life system, including human interactions and interventions;
- develop the ability to collect and interpret environmental field data within a focused sub-discipline of earth and environmental sciences; and
- develop a quantitative, analytical skill set to integrate the diverse array of earth sciences and related disciplines.