Earth, Environmental, and Planetary Sciences

The Department of Earth, Environmental, and Planetary Sciences offers PhD and AM degrees. This department is one of the few departments in the country with an integrated program of graduate instruction and research that treats Earth as a planet and that makes direct use of knowledge gained by exploring the solar system. Our field is changing rapidly and becoming more interdisciplinary as links emerge among geology, geochemistry, geophysics, and geobiology. New opportunities are developing as research in natural hazards, energy sources, and the environment become more important to the global economy and as new space missions are developed to explore the solar system. The relatively small size of the department engenders a friendly and personal place that offers a lot of personal interaction with faculty and researchers. Our graduate students have the opportunity to use cutting-edge laboratory equipment, high-speed parallel computers, and the latest planetary mission data throughout the course of their research. They travel to field sites around the world and publish research in the leading scientific journals.

The PhD program is open to qualified students who have previously specialized in Earth sciences, physics, chemistry, biology, environmental science, soil science, mathematics, or engineering. Both students with traditional degrees in geoscience areas and students with diverse academic backgrounds regularly enroll in our program because of the inherently interdisciplinary nature of our field. Doctoral education has a strong research emphasis that begins immediately upon arrival and that emphasizes modern, quantitative approaches to studying Earth, planetary, and environmental systems. Graduate research may involve field and laboratory studies as well as theory and advanced computation. Students earn the AM degree during the first phase of the PhD program; the department generally does not admit students for terminal AM degrees. After degree completion, our graduates go on to careers in academia, research laboratories, government agencies, and the private sector, serving as leaders in the field of earth, environmental, and planetary sciences.