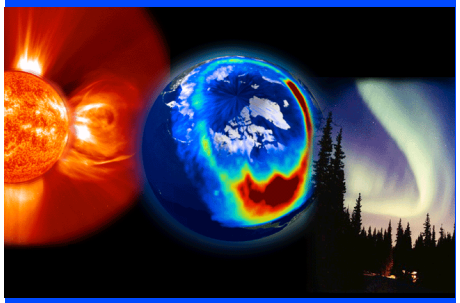
Join the Excitement

Students and Faculty are engaged in cutting-edge research to understand the origins of life and the solar system, the structure and origin of the Earth, and the dynamic coupling of the space environment. The distinguished faculty and alumni include National Academy of Sciences members, and astronauts. For ESS students, the world is not the only laboratory.



www.ess.ucla.edu

From the Core of the Earth to the Edge of the Solar System

The extraordinary breadth of the Department reflects the interdisciplinary approaches required to understand complex systems like the Earth and the planets. Our faculty tackle a wide range of problems, from the Sun to the most distant planets, and from the center of the Earth to the tenuous ionized gases of the solar wind. We probe the interior of the Earth using seismic data, laboratory measurements, and computer modeling. We study both the ancient tectonics of the Earth and its catastrophic movements in earthquakes today. We explore Earth's upper atmosphere using spacecraft to measure magnetic fields and plasmas. Moving outward from Earth, we study other planets, their interiors, surfaces, atmospheres, and particle and field environments. No object in the solar system-not asteroids nor ions in the solar wind-are small enough to escape our attention. A central theme of the Department's researchers is to understand the origin and evolution of the solar system, the planets, Earth itself,

UCLA-ESS

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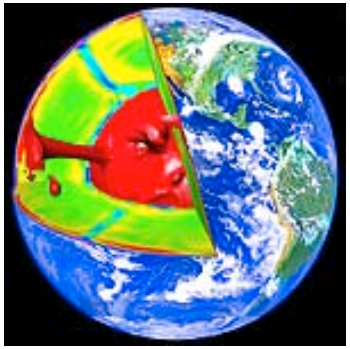
UCLA

EARTH AND SPACE SCIENCES UNDERGRADUATE DEGREE PROGRAMS



MAJORS:

GEOLOGY

PALEOBIOLOGY

ENGINEERING GEOLOGY

GEOPHYSICS & SPACE PHYSICS

APPLIED GEOPHYSICS

EARTH SCIENCES

The Earth and Space Sciences

Students with a general interest in science are encouraged to enroll in an undergraduate program in the Department of Earth and Space Sciences. Our students are trained in the physical, chemical, and biological sciences, and their application to understanding the earth, the solar system, space, and the evolution and origin of life. Because of the wide diversity of subject areas in the earth and space sciences, we offer the Bachelor of Science degree with five different specializations: Geology, Engineering Geology, Paleobiology, Applied Geophysics, and Geophysics and Space Physics. We also offer a Bachelor of Arts degree in Earth Sciences.

The majority of our students expect to make their careers in the earth or space sciences; others are considering careers in business, government, law, teaching or the health sciences. Medical and dental schools accept applicants with degrees in the earth sciences, and some schools favor those applicants with a broad background in the physical sciences. If you are interested in pursuing one of these challenging goals, a major in Earth & Space Sciences is an exciting alternative to the more conventional majors for pre-professional students.

Department Resources and Activities

The Department houses the WM Keck Foundation National Center for Isotope Geochemistry, the Center for the Study of Evolution and the Origin of Life, and a NASA Astrobiology Center. It is a major partner in the Southern California Earthquake Center, and it is deeply involved in NASA's space missions such as the STEREO mission to study the Sun; the POLAR and CLUSTER missions exploring the Earth's magnetosphere; and the Cassini mission to Saturn. UCLA is the lead institution for NASA's Dawn Discovery mission to Ceres and Vesta, the two largest asteroids.

The Department sponsors a wide range of academic and recreational events. Hundreds of distinguished visitors and guest lecturers in all relevant specialties come to UCLA each year, providing valuable interactions, which benefit everyone. Several open talks are given each week by these visitors and by our own faculty, students, and researchers. Several annual field trips, formal and informal gatherings, and recreational activities add to departmental spirit.

We maintain a vigorous program in field geology with opportunities for research in the field as close as the Pacific Palisades (a couple of miles from campus) and as far away as Australia, Peru, and Tibet, to name just a few.

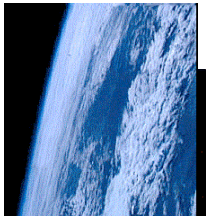
ESS students in the field learning geologic mapping techniques.

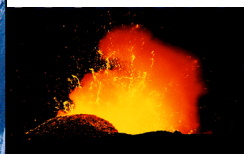
Alumni

Alumni of the Department of Earth and Space Sciences are employed in academic positions in over 100 colleges and universities worldwide; in more than 30 foundation and government organizations; and in over 50 private and industrial firms . . . one is Director of the Jet Propulsion Laboratory . . . another commutes to work on NASA's Space Shuttle - he's an astronaut at the International Space Station! Our undergraduate majors will prepare you for advanced technical degrees or open the door for an array of professional careers.

Why ESS at UCLA?

The geosciences programs at UCLA are ranked in the top 10 in the world. The department offers a 3:1 student to faculty ratio at the undergraduate level and provides a wide array of research opportunities. UCLA is one of the most dynamic campuses in the world with a vast range of cultural, sports and entertainment venues. The UCLA campus is located minutes from both the ocean and mountains and has a year-round Mediterranean climate.





From Aeronomy to Volcanism, ESS studies it all.