

EARTH AND SPACE SCIENCES

From the Earth's core to the edges of the solar system, the Department of Earth and Space Sciences at the University of Washington uses leading-edge approaches to inform our collective understanding about how complex systems function. Cutting across traditional disciplines, scientists in the department use their expertise in geology, physics, chemistry, biology and mathematics to advance our understanding and develop useful knowledge about the Earth, solar system and how we interact with the environment.

CURRENT INITIATIVES

The Pacific Northwest Seismic Network, part of Earth and Space Sciences, is developing the region's first earthquake early warning system. ShakeAlert quickly locates earthquakes and sends out alerts that warn people before the arrival of the strong shaking from the S waves. Several automatic systems are currently in place, such as shutting off water systems to prevent draining reservoirs. Public alerts are planned to start by the end of 2020. PNSN's scientists help to provide simple, fast and accessible earthquake early warning coverage across the West Coast to protect people and infrastructure. Long term, the technology could extend into other earthquake-prone areas such as Hawaii, Nevada, Utah and Alaska.

IMPACT

Earth and Space Sciences develops critical thinkers with intellectual versatility, many of whom participate in the department's field experiences. From Geology Field Camps in Montana to building and launching rockets 100,000 feet into the Nevada sky, these hands-on experiences put science into action. Funds for Independent Undergraduate Research provides an opportunity for students who would not typically seek out independent research projects on their own due to financial or time constraints, lack of experience or encouragement. Students walk away from these field courses with new perspectives and knowledge, as well as the highlight of their undergraduate and graduate careers.

NOTABLE ACHIEVEMENTS AND RECOGNITION

Earth and Space Sciences' deep expertise and commitment to generating knowledge is reflected in the achievements of its faculty members and its status as a robustly funded research enterprise. Faculty are recipients of national and international recognition including election as Fellows of the American Association for the Advancement of Science, American Geophysical Union and Geological Society of America, as well as numerous career awards from professional organizations.



RESEARCH

- Climate and paleoclimate
- Space and planetary physics
- Astrobiology
- Geomicrobiology
- Isotope geochemistry
- Petrology, mineralogy and geochemistry
- Sedimentology, stratigraphy and sedimentary petrology
- Seismology and geodesy
- Structural geology, tectonics and geodynamics
- Earth and planetary surface processes
- Glaciology
- Quaternary research

DEGREES OFFERED

Bachelor of Arts:

Earth and Space Sciences

Bachelor of Sciences:

Earth and Space Sciences — Geology

Earth and Space Sciences — Physics

Earth and Space Sciences — Biology

Earth and Space Sciences — Environmental

Master of Science:

Earth and Space Sciences

Earth and Space Sciences — Applied Geoscience

Doctor of Philosophy:

Earth and Space Sciences

BY THE NUMBERS

Faculty: **35**

Undergraduate students: **176**

Graduate students: **64**

SUPPORT

The Department of Earth and Space Sciences benefits from the generosity of alumni and friends. Contributions from public and private foundations and important endowment funding supports students, faculty and programs. To learn more about giving to the Department of Earth and Space Sciences, please contact the College of the Environment Advancement team: envadv@uw.edu, 206-221-9319.

CONTACT

For more information about the Department of Earth and Space Sciences, please contact:
essadv@uw.edu, 206-543-1190.

For more information about the College of the Environment, please contact: coenv@uw.edu, 206-685-5410.

We acknowledge that we are on the land of the Coast Salish peoples, land which touches the shared waters of all tribes and bands within the Suquamish, Tulalip and Muckleshoot nations.