COLLEGE OF THE ENVIRONMENT / UNIVERSITY of WASHINGTON

ATMOSPHERIC SCIENCES

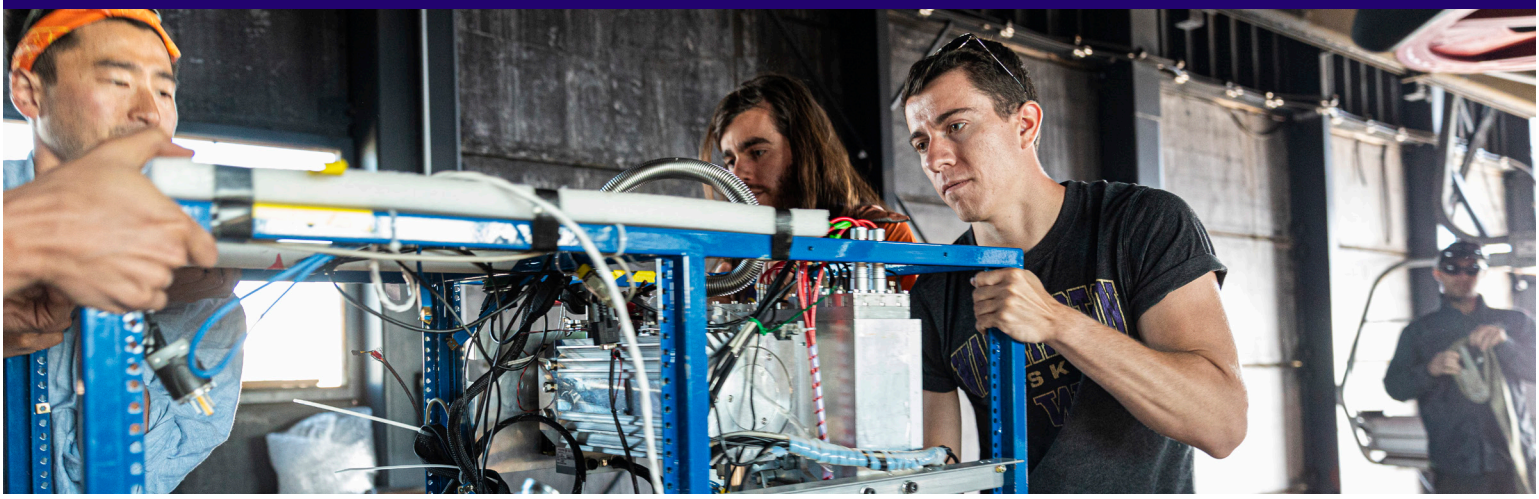
Our dynamic atmosphere touches all aspects of life on Earth — from growing crops to regulating the planet's temperature. The Department of Atmospheric Sciences crosses disciplinary boundaries, using physics, chemistry and mathematics so that faculty and students better understand an atmosphere in motion. Studying global-scale circulation down to single cloud droplets, scientists working and learning in the department are able to predict atmospheric changes and identify whom those changes will impact the most.

CURRENT INITIATIVES

One of the great scientific challenges of our time deals with predicting how climate will change in the future. It will not be uniform — substantial variation in temperature, precipitation, and cloudiness are predicted across the globe. To better estimate local impacts of natural and human-caused variability, Atmospheric Sciences is spearheading the Climate Modeling Consortium. A multi-agency effort, the consortium uses technological advances to fine-tune predictions beyond local atmospheric models. By incorporating the ocean, hydrologic, air quality, and land-surface models, we will better understand climate change in complex environments like the Pacific Northwest, and be better prepared to remain resilient in the face of change.

NOTABLE ACHIEVEMENTS AND RECOGNITION

Atmospheric Sciences has numerous esteemed faculty members, including Fellows in the National Academy of Sciences, American Academy of Sciences, American Meteorological Society and American Geophysical Union. Department faculty have written many books, including "Atmospheric Science: An Introductory Survey," which is one of the defining and most frequently used textbooks in teaching atmospheric sciences today, even after nearly 40 years and two editions.



WORLD-CLASS TECHNOLOGY AT OUR FINGERTIPS

Atmospheric Sciences is renowned for computer simulations and models of a broad range of atmospheric processes, weather forecasts and climate conditions. Observational data is collected by instruments that are built in the department and through international networks that regularly monitor weather and climate including aircraft, satellites, radar operated by the National Science Foundation, National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, and the United States Department of Energy.

SUPPORT

The Department of Atmospheric Sciences benefits greatly 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 Atmospheric Sciences, please contact the College of the Environment Advancement team: envadv@uw.edu, 206-221-9319.

CONTACT

For more information about the Department of Atmospheric Sciences, please contact: atmos@uw.edu, 206-543-4250.

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.

RESEARCH

- Aerosol and cloud microphysics
- Arctic, tropical and mountain meteorology
- Atmospheric chemistry
- Atmospheric fluid dynamics
- Biosphere interactions
- Climate variability
- Clouds and storms
- Radiative transfer
- Snow and ice physics
- Weather forecasting
- Climate change

DEGREES OFFERED

Bachelor of Science:
Atmospheric Sciences
Master of Science:
Atmospheric Sciences
Doctor of Philosophy:
Atmospheric Sciences

BY THE NUMBERS

Faculty: **22**
Undergraduate students: **60**
Graduate students: **65**