

Atmospheric Sciences

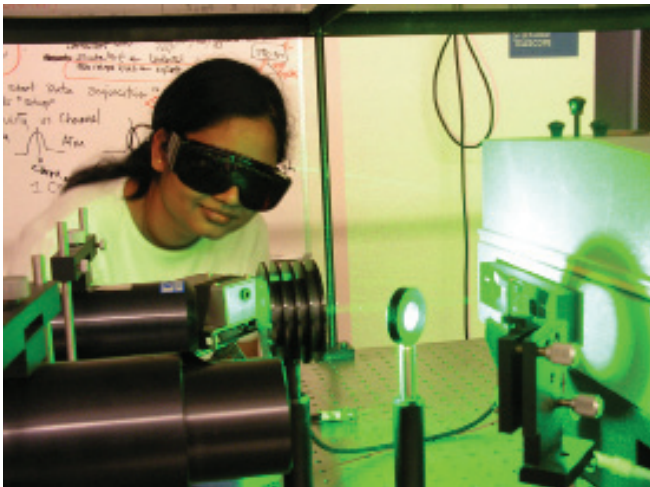
www.uaf.edu/asp

Degree Programs

M.S., Ph.D. Atmospheric Sciences

M.S. and Ph.D. degrees are obtained through research and coursework. Graduate students who are accepted as research assistants are funded by competitive stipends that include tuition waivers and funding for summer research. Incoming students have the opportunity to pursue degrees with an emphasis tailored to match their research interests. Students enter the program from a wide variety of academic backgrounds and acceptance is determined on a case-by-case basis.

The UAF Department of Atmospheric Sciences is a growing and expanding faculty group who share a common interest in the physical, chemical and dynamic processes of the atmosphere. Researching the polar atmosphere is our main emphasis, but we also expand studies to other regions around the globe.



Atmospheric Sciences graduate student Brentha Thurairajah works in the Liadr Lab at the Poker Flat Research Range. Photo courtesy of Richard Collins

Atmospheric Sciences is housed in the Akasofu Building, down the hall from the Fairbanks National Weather Service Office. Students learn in a state-of-the-art environment with one-of-a kind learning opportunities like cutting-edge computer modeling techniques, exciting field experiments, access to world-class research facilities like the Arctic Research Supercomputing Center, Poker Flat Research Range, and several observational networks as well as international exposure to research scientists from all over the world.

UAF Atmospheric Sciences research is conducted on all aspects of the atmosphere and climate change including connections to the arctic biosphere, sea-ice, ocean, glaciers and ecosystems. Research is divided into several areas: Atmospheric Remote Sensing, Atmospheric Chemistry Transport Modeling, Cloud/Aerosol Physics, Climate Variability & Change, Hydrometeorology, Mesoscale Modeling and Aeronomy.

About the Department

The field of atmospheric sciences covers a wide variety of disciplines involving the physical and chemical properties and processes of the atmosphere. Emerging trends in atmospheric sciences stress the interactions of the atmosphere with other components (i.e. land, sea ice, ocean) in the total earth system.

The UAF Atmospheric Sciences department has been ranked as a top 10 program in the nation by the Chronicle of Education in 2005, 2006 & 2007.

The UAF Geophysical Institute, the International Arctic Research Center, the Arctic Region Supercomputing Center and other university research institutes support active research programs in high-latitude atmospheric sciences that include faculty from these institutes.

Current atmospheric sciences research focuses on: atmospheric chemistry/biogeochemistry, climate modeling, cloud and aerosol physics, mesoscale chemical transport modeling, numerical weather prediction and aviation weather.

In addition, scientists affiliated with the research institutes conduct research on radiative transfer, ocean-atmosphere interactions, dynamic meteorology, micrometeorology, polar meteorology, cryosphere-atmosphere interactions and remote sensing. Graduate students are an integral component of this research, both in the laboratory and the field.



Fairbanks halo display. Photo by Brian M. Hartmann

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