

# ATMOSPHERIC SCIENCES

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## M.S., Ph.D. Degrees

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

The UAF Geophysical Institute, the International Arctic Research Center and other university research institutes support active research programs in high-latitude atmospheric science that include faculty from biology, chemistry, physics, engineering and other departments. Current research by atmospheric sciences focuses on: atmospheric chemistry and biogeochemistry, climate modeling, cloud and aerosol physics, mesoscale modeling, numerical weather prediction and aviation weather, and upper atmosphere (stratosphere and mesosphere). In addition, scientists affiliated with the research institutes conduct research on ocean-atmosphere interactions, dynamic meteorology, micrometeorology and microclimatology, polar meteorology, radiative transfer, cryosphere-atmosphere interactions and remote sensing.

Graduate students are an integral component of this research, both in the experiments in the laboratory and the field as well as in high-performance computing. Research institutes provide excellent environments for research in atmospheric science as well as interdisciplinary research with scientists in other research areas.

Minimum Requirements for Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics  
Department of Atmospheric Sciences (<https://www.uaf.edu/atmos/>)  
907-474-7368

## Admission Requirements

Admission to the Department of Atmospheric Sciences generally requires a degree in a scientific discipline, one year of calculus-based physics, math through differential equations, and one semester of chemistry. Since atmospheric science is a highly interdisciplinary field, incoming students' backgrounds vary considerably. Thus, acceptance into the program is made on a case-by-case basis.

## Programs Degrees

- M.S., Atmospheric Sciences (<http://catalog.uaf.edu/graduate/graduate-degree-programs/atmospheric-sciences/ms/>)
- Ph.D., Atmospheric Sciences (<http://catalog.uaf.edu/graduate/graduate-degree-programs/atmospheric-sciences/phd/>)