

Atmospheric Sciences



College of Science, Engineering and Mathematics

Atmospheric Sciences Program

(907) 474-7608

www.uaf.edu/csem/

Degrees: M.S., Ph.D.

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

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 (i.e. land, sea ice, ocean) in the total earth system.

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

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

GRADUATE PROGRAM

Atmospheric Sciences—M.S. Degree

1. Complete the general university requirements (page 43).
2. Complete the master's degree requirements (page 46).
3. Complete the following basic courses in atmospheric sciences:

ATM 601—Introduction to Atmospheric Science	3
ATM 606—Atmospheric Chemistry	3
ATM 609—Atmospheric Thermodynamics	3
ATM 613—Atmospheric Radiation	3
ATM 645—Atmospheric Dynamics	3
4. Complete the thesis or non-thesis requirements:

Thesis

- a. Additional approved 600-level courses 9
- b. ATM 699—Thesis 6-12
- c. Minimum credits required 30

Non-Thesis

- a. Additional approved courses 15
- b. PHYS 698—Research 3-6
- c. Minimum credits required 33

Note: At least 30 credits must be regular coursework (not research) with 24 of these credits at the 600-level.

Atmospheric Sciences—Ph.D. Degree

1. Complete the general university requirements (page 43).
2. Complete the Ph.D. degree requirements (page 48).
3. Complete the following basic courses in atmospheric sciences:

ATM 601—Introduction to Atmospheric Science	3
ATM 606—Atmospheric Chemistry	3
ATM 609—Atmospheric Thermodynamics	3
ATM 613—Atmospheric Radiation	3
ATM 645—Atmospheric Dynamics	3
4. Complete the additional course requirements determined in conjunction with the graduate advisory committee.
5. Minimum credits required 18



University of Alaska Fairbanks

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