

Preparing Students for Careers in the Atmospheric Sciences

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The University of Nebraska's Department of Earth and Atmospheric Sciences offers a program leading to the Bachelor of Science degree in Meteorology-Climatology. By combining hands-on education in atmospheric science with training in mathematics, computer science, and physics, our degree program is designed to prepare students for professional career paths in federal, state, and private agencies which are involved in the many applied fields of the atmospheric sciences. Our degree program also serves as a springboard for students wishing to pursue graduate-level studies in the atmospheric sciences and a variety of other disciplines.

Our program is designed to be rigorous, but flexible. It fulfills the recommended curriculum of the American Meteorological Society (AMS) and the University Corporation for Atmospheric Research (UCAR) and meets or exceeds the minimum hiring requirements for employment as a meteorologist with the Federal government (e.g., National Weather Service, Environmental Protection Agency, National Aeronautics and Space Administration etc.). However, students are given the flexibility to pursue their own interests within the broad field of atmospheric sciences through the selection of electives (over 20 courses offered) and a capstone course (2 offered).

Whenever possible, our courses provide field-based and research experience that helps our students "think like scientists". These experiences teach students to not only collect and analyze data, but also communicate their results and conclusions. In addition, many of our courses integrate computerized weather data visualization and analysis tools into lab and homework exercises, which allow graduates of our program to enter the market with a highly valued skill set.

In addition to their regular course work, our students are presented with opportunities for professional internships, increasing their skills and competitiveness for job placement. Recently, students have participated in competitive and/or professional internships at NASA Jet Propulsion Laboratory, NASA Goddard Space Flight Center, Scripps Institute of Oceanography, the National Weather Service, climate service centers, and local television stations. In conjunction with our Alumni Advisory Board, our department sponsors an annual professional development workshop which connects students with atmospheric science alumni to explore career paths, receive career advice, and network with other professionals.

Our program only recently began tracking employment information. Upon completion of our program, approximately 1/3 of our students attend graduate school in Atmospheric Science or related fields. The majority of our remaining students have successfully obtained employment in the following areas:

- Employment with federal agencies such as the National Oceanic and Atmospheric Administration, National Weather Service, National Aeronautics and Space Administration, Environmental Protection Agency, the National Park Service, and the military
- Private weather consulting
- Broadcast meteorology
- Agriculture
- Education
- Energy
- Business (e.g., insurance, commodities)
- Other professional occupations requiring a strong scientific base