

# DEPARTMENT OF ATMOSPHERIC SCIENCES

Atmospheric sciences is an interdisciplinary field encompassing the physics and chemistry of the atmosphere, along with its interaction with the Earth's surface and oceans. Scientists in this field use their knowledge to improve weather forecasts, model cloud and precipitation processes, understand the climate system, observe the atmosphere with radar and satellites, and probe atmospheric chemistry and air quality. The study of this field is based on principles from physics, chemistry and mathematics, and well prepared students will have a solid grounding in all three disciplines.

Students in the Department of Atmospheric Sciences benefit from relatively small classes and low student-to-teacher ratios. Many opportunities are available for participating in faculty-led research programs, including national and international field campaigns, often culminating in presentations at national conferences.

## Faculty

Bowman, Kenneth P, Professor  
Atmospheric Sciences  
PHD, Princeton University, 1984

Brooks, Sarah D, Professor  
Atmospheric Sciences  
PHD, University of Colorado, 2002

Conlee, Don T, Instructional Professor  
Atmospheric Sciences  
PHD, Texas A&M University, 1994

Dessler, Andrew E, Professor  
Atmospheric Sciences  
PHD, Harvard University, 1994

Epifanio, Craig C, Associate Professor  
Atmospheric Sciences  
PHD, University of Washington, 1999

Korty, Robert L, Associate Professor  
Atmospheric Sciences  
PHD, Massachusetts Institute of Technology, 2005

Liu, Xiaohong, Professor  
Atmospheric Sciences  
PHD, Nanjing University, China, 1992

Logan, Timothy S, Assistant Professor  
Atmospheric Sciences  
PHD, University of North Dakota, 2014

Nielsen-Gammon, John W, Regents Professor  
Atmospheric Sciences  
PHD, Massachusetts Institute of Technology, 1990

Nowotarski, Christopher J, Associate Professor  
Atmospheric Sciences  
PHD, Pennsylvania State University, 2013

Panetta, Richard L, Professor  
Atmospheric Sciences  
PHD, University of Wisconsin, 1978

Rapp, Anita D, Assistant Professor  
Atmospheric Sciences  
PHD, Colorado State University, 2004

Saravanan, Ramalingam, Professor  
Atmospheric Sciences  
PHD, Princeton University, 1990

Schade, Gunnar W, Associate Professor  
Atmospheric Sciences  
PHD, Johannes Gutenberg Universitat at Germany, 1997

Schumacher, Courtney, Professor  
Atmospheric Sciences  
PHD, University of Washington, 2003

Szunyogh, Istvan, Professor  
Atmospheric Sciences  
PHD, Hungarian Academy of Sciences, 1994

Winkley, Shel, Lecturer  
Atmospheric Sciences  
BS, Texas A&M University, 2007

Xu, Yangyang, Assistant Professor  
Atmospheric Sciences  
PHD, University of California at San Diego, 2014

Yang, Ping, University Distinguished Professor  
Atmospheric Sciences  
PHD, University of Utah, 1995

Zhang, Renyi, University Distinguished Professor  
Atmospheric Sciences  
PHD, Massachusetts Institute of Technology, 1994

## Majors

- Bachelor of Science in Meteorology (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/atmospheric-sciences/meteorology-bs/>)
- Bachelor of Science in Meteorology and Master of Ocean Science and Technology, 5-Year Degree Program (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/atmospheric-sciences/bs-metr-most/>)

## Minors

- Climate Change Minor (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/atmospheric-sciences/climate-change-minor/>)
- Meteorology Minor (<http://catalog.tamu.edu/undergraduate/arts-and-sciences/atmospheric-sciences/meteorology-minor/>)

## Facilities

The Department of Atmospheric Sciences occupies the upper floors of the 15-story Oceanography and Meteorology Building. The Doppler weather radar on the roof of the building is a campus landmark and is used for both research and teaching. The department also operates a mobile Doppler radar for use in research projects. The department has four state-of-the-art chemistry labs, in which phenomena from ozone

to aerosols are studied, as well as facilities for modeling the chemical environment. A continuous, comprehensive stream of meteorological data is received from ground stations, balloons, aircraft, radars, and satellites around the world. Two well-equipped computer labs are regularly upgraded to provide state-of-the-art educational equipment.