The department offers two named options for an M.S. degree. The Research M.S. named option can be earned as part of the path toward a Ph.D. degree or earned as a terminal degree. The Professional M.S. named option is for students who are focused on developing the practical skills to succeed in meteorological consulting, risk management, and operational forecasting. Both degrees offer significant opportunities within the public and private sectors.

The department currently has 18 faculty members and many staff members involved in large and energetic research programs. Particular strengths include climate/earth system science, geophysical fluid dynamics, remote sensing, planetary boundary layer, atmospheric chemistry, weather systems and prediction, and oceanography. Course concentrations within the existing degree program are offered in the areas of weather prediction, earth system science, remote sensing, and oceanography.

The department has close ties with the Center for Climatic Research, the Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment, Space Science and Engineering Center, Cooperative Institute for Meteorological Satellite Studies, National Weather Service, and the State Climatologist Office.

Job opportunities have been strong within the United States for people with graduate degrees in atmospheric and oceanic sciences. The government hires a large number of meteorologists with advanced degrees, as do many private forecasting companies and air quality consulting firms. In addition, there are openings for experts at various government and university research labs.