

Atmospheric and Environmental Sciences

Bachelor of Science

What is Atmospheric and Environmental Sciences?

Atmospheric and environmental sciences is the study of the complex system of the earth's atmosphere such as tornadoes, blizzards, climate change, and more. This field of science strives to predict both short-term weather patterns and long-term climate processes.

What does an atmospheric and environmental scientist do?

Atmospheric and environmental scientists study the weather and climate and examine how the conditions impact the earth and human beings. Meteorologists forecast tornadoes, blizzards, and other hazardous weather; air quality experts monitor environmental conditions; and climatologists study long-term weather trends and climate change.

Duties that an atmospheric and environmental scientist might undertake include:

- Measure temperature, atmospheric pressure, humidity, wind speed, dew point, and other properties of the atmosphere
- Use computer models that analyze data about the atmosphere (also called meteorological data)
Write computer programs to support their modeling efforts
- Conduct research to improve understanding of weather phenomena
- Generate weather graphics for users
- Report current weather conditions
- Prepare long- and short-term weather forecasts by using computers, mathematical models, satellites, radar, and local station data
- Plan, organize, and participate in outreach programs aimed at educating the public about weather
- Issue warnings to protect life and property when threatened by severe weather, such as hurricanes, tornadoes, and flash floods

Careers in atmospheric and environmental science might include:

- operational meteorology (weather forecasting)
- atmospheric research
- broadcast meteorology
- environmental consulting
- industrial and commercial forecasting
- air and water quality, pollution
- transportation
- military, emergency response
- agriculture or energy industries

For more information: <https://www.sdsmt.edu/Academics/Degrees/Atmospheric-Sciences/>



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