

Meteorology

The Meteorology major focuses on the study of weather, atmospheric processes, and climate patterns. Students in this major learn to analyze weather data, predict weather events, and understand the impact of atmospheric conditions on the environment and human activities. Graduates are prepared for careers that involve forecasting, climate research, and environmental monitoring. Typical industry sectors include meteorological services, government agencies (such as the National Weather Service), environmental consulting, broadcasting, and disaster management.

Job Title Examples:

- Meteorologist
- Weather Forecaster
- Atmospheric Research Assistant
- Climate Data Analyst
- Environmental Consultant
- Weather Technician
- Meteorological Analyst
- Storm Chaser
- Broadcast Meteorologist
- Atmospheric Scientist

Hard and Soft Skills Needed:

Hard Skills:

1. Weather Forecasting
2. Climate Modeling
3. Data Analysis and Statistical Software
4. Atmospheric Instrumentation
5. Geographic Information Systems (GIS)

Soft Skills:

1. Analytical Thinking
2. Problem-Solving
3. Communication
4. Attention to Detail
5. Teamwork

Further Education/Training Required and/or Suggested:

A BS in Meteorology qualifies students for entry-level roles, but additional training or certifications may enhance opportunities or be required for specific career paths:

To Enter the Field:

1. National Weather Service (NWS) Requirements:
 - Meet NWS course standards, including physics, calculus, and atmospheric science coursework.
2. Broadcast Meteorology:
 - Consider the Certified Broadcast Meteorologist (CBM) credential for media roles.

To Advance:

1. Specialized Certifications:
 - American Meteorological Society (AMS) Certifications, such as CBM or Certified Consulting Meteorologist (CCM) for consulting roles.
2. Graduate Studies:
 - A master's or PhD is often required for research, teaching, or advanced operational roles.

Summary:

Entry-level roles may not require certifications, but AMS credentials and advanced degrees are key for career growth.

Professional or Student Associations:

- American Meteorological Society (AMS)
- National Weather Association (NWA)
- National Oceanic and Atmospheric Administration (NOAA)
- WKU Storm Team
- White Squirrel Weather