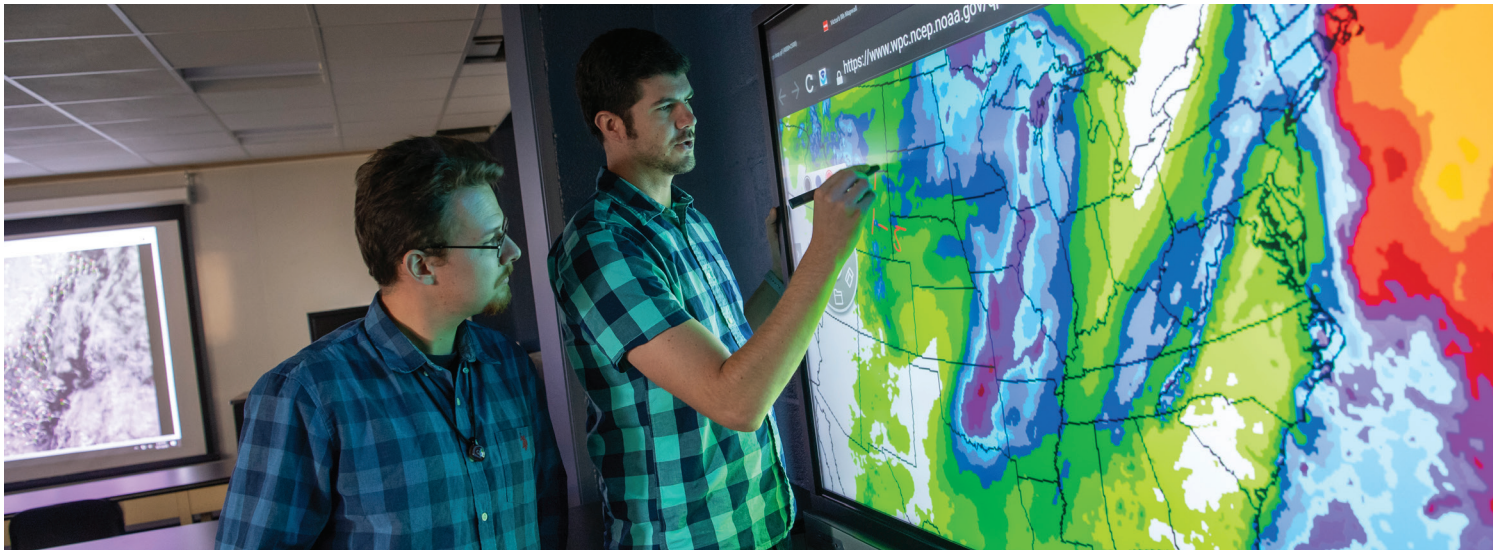
NORTHERN ILLINOIS UNIVERSITY | COLLEGE OF LIBERAL ARTS AND SCIENCES

Meteorology



Are you a weather geek? Are you interested in climate change and how it will affect industry and daily life? Do you enjoy math and science classes? If you answered yes, consider a degree in Meteorology, the science of the atmosphere. Our program, rich in tradition, was the very first meteorology or atmospheric science degree program offered by a public university in Illinois. In addition to an abundance of hands-on learning opportunities commonly associated with a large research university, you'll find the personal attention typically associated with a small college, and dedicated faculty committed to mentoring and teaching. All core classes are taught by full-time, award-winning faculty. Class sizes in required courses are small; averaging between 15 and 25, while enrollments in electives courses are typically smaller. Our program meets standards established by the American Meteorological Society for an undergraduate degree in atmospheric science and federal civil service requirements for meteorologists. To properly prepare for career opportunities, you're required to take a series of math and science courses and encouraged to consult regularly with your adviser in our department.

Beyond Forcasting

There's more to Meteorology than forecasting and broadcasting! Our program provides an educational foundation and experience that will prepare you for public and private sector careers in applied meteorology, environmental meteorology, weather forecasting, and applied climatology, as well as additional graduate education.

Networking with Professionals

The opportunity to network with professionals in the field – many of whom are proud NIU alumni – is a hallmark of our program. You will connect with them throughout your educational journey, from classroom presentations and research activities to student American Meteorological Society (AMS) meetings.

Every fall, the Department hosts Career Day to allow current students to network with alumni while learning first-hand the career options open to students pursuing a Meteorology degree. Those connections are deepened through internship and research activities.

Contact Information

Victor Gensini
Davis Hall, 219E
Northern Illinois University
DeKalb, IL 60115
815-753-0631
vgensini@niu.edu

go.niu.edu/meteorology

NORTHERN ILLINOIS UNIVERSITY
Department of Geographic and Atmospheric Sciences

METEOROLOGY AT NORTHERN ILLINOIS UNIVERSITY

Bring Learning to Life

We encourage you to participate in the following:

Internships

Between our close proximity to Chicago and Rockford and our network of regional weather-sensitive sectors, our program has developed a list of internship options that allow you to consider career options in government or private sector weather forecasting, broadcast journalism, research opportunities and private sector use of weather and climate information in risk management efforts.

Faculty-mentored research (MET 431 and 491) activities

Projects have been presented at the Department and University Research and Artistry Day. Some of these project findings have been published in refereed literature or presented at regional or national conferences.

Student chapter of the American Meteorological Society

Participating is a great way to network with fellow students and professionals in the field! The group meets once or twice a month, brings in external speakers and takes a couple field trips throughout the year.

NIU/NWS Weather Station

A cooperative weather station is located on campus allowing you to take daily weather observations of temperature, precipitation, evaporation and soil temperatures. The weather director develops and disseminates a monthly climate summary.

Degree Requirements

Requirements in Department (35)

GEOG 105	Weather, Climate and You
GEOG 106	Weather, Climate and You Laboratory
GEOG 300	Proseminar
MET 300	Meteorology
MET 360	Radar Meteorology OR GEOG 360 - Introduction to Remote Sensing
MET 410	Weather Dynamics I
MET 411	Weather Dynamics II
MET 421	Synoptic Meteorology
MET 444	Mesoscale Meteorology
MET 475	Practicum in Weather Analysis and Forecasting

Course work from the following (6)

GEOG 370	Regional Climatology
GEOG 391	Internship Meteorology/Climatology (1-3 hours)
GEOG 406	Natural Hazards and Environmental Risk
GEOG 408	Tropical Environmental Hazards
GEOG 460	Remote Sensing of the Environment
GEOG 461	Applied Statistics in Geographic Research
GEOG 491	Undergraduate Research in Geography
GEOG 492	Hydrology
GEOG 498	Seminar in Current Problems
MET 291	Field Experience in Meteorology
MET 430	Micrometeorology
MET 431	Applications in Climatology
MET 485	Atmospheric Physics
MET 491	Undergraduate Research in Meteorology

Requirements outside Department (30-31)

CSCI 240	Computer Programming in C++ OR GEOG 493 – Computer Programming for Geospatial and Atmospheric Sciences
MATH 229	Calculus I
MATH 230	Calculus II
MATH 232	Calculus III
MATH 336	Ordinary Differential Equations
PHYS 253	Fundamentals of Physics I: Mechanics
PHYS 273	Fundamentals of Physics II: Electromagnetism
STAT 200	Elementary Statistics

Northern Illinois University

Careers In Meteorology

Meteorologists study and predict the weather and climate, which impacts lifestyle and the economy. Even more so today, the career opportunities go beyond the traditional forecasting and broadcasting to atmospheric research and teaching.

Meteorologists add value to the decision-making process in the public and private sector, including:

- Government
- Aviation
- Agriculture
- Financial Services/Insurance
- Energy
- Transportation
- Water Resources
- Sporting/Entertainment venues

According to the U.S. Bureau of Labor Statistics, employment of atmospheric scientists is projected to grow 9 percent through 2024, faster than the average for all occupations. The best job prospects for atmospheric scientists will be in private industry.