



Graduate Certificate in Weather and Climate Analytics



PennState
World Campus

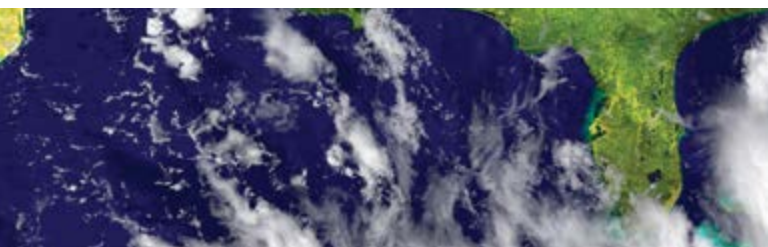
A world of possibilities.
Online.

Graduate Certificate in Weather and Climate Analytics

Many of the world's economies are sensitive to weather and climate hazards, and minimizing uncertainty has become a priority among leading commercial and government sectors. At the same time, real-time and historical weather data has never been more readily available. The Graduate Certificate in Weather and Climate Analytics, offered online through Penn State World Campus, can teach you how to leverage this information to make better decisions, whatever your field of interest.

As a student in this five-course, 13-credit program, you can learn to:

- › identify and collect global weather and climate data for a specific weather-impacted scenario
- › clean, transform, and analyze historical weather and climate information with the goal of understanding a particular weather impact
- › use predictive analytic techniques to anticipate the future behavior of the atmosphere
- › effectively communicate weather analytics analyses and their implications to decision-makers
- › understand challenges and opportunities that exist when incorporating weather analytics decisions in commercial and government sectors



Curriculum

To earn this graduate certificate, you must successfully complete all five courses:

METEO 810: Weather and Climate Data Sets

(3 credits)

Details a variety of methods for accessing appropriate weather and climate data sets available from government and research institutions.

METEO 815: Applied Atmospheric Data Analysis

(3 credits)

Provides practical guidance in the quantitative analysis of large weather and climate data sets for incorporation into a data analytics system.

METEO 820: Time Series Analytics for

Meteorological Data (3 credits)

Presents time-series analysis techniques for large weather and climate data sets for incorporation into an analytical modeling system.

METEO 825: Predictive Analytic Techniques for

Meteorological Data (3 credits)

Covers forecast systems of weather and climate variables and how to incorporate them into decision-making systems.

METEO 830: Weather and Climate Analytics

Applications (1 credit)

Presents students with a capstone experience in which they will create a data-driven weather analytics analysis and presentation.





Online Learning through Penn State World Campus

To allow you to balance your commitments to family, career, and studies, this program is offered online through Penn State World Campus. Your learning experience will be enhanced by frequent faculty interaction, collaborative group projects, access to instructional resources, and dedicated academic advising and support services.

The courses have fixed start and end dates. You can complete course work at the time that best fits your schedule; however, there are regular deadlines. You must take the courses sequentially unless you receive prior approval to do otherwise.

Upon successful completion of the program requirements, you will receive a formal certificate identical to one received by a resident Penn State student.



Why Penn State World Campus?

- › The world-renowned Penn State Department of Meteorology and Atmospheric Science is one of the oldest and largest of its kind in the U.S.
- › Learn from Penn State faculty who are nationally recognized leaders in meteorology education.
- › Penn State credits and degrees earned online are identical to those earned on campus.
- › Penn State World Campus has enrolled students from all 50 states and all 7 continents.

Begin Your Application Today

To pursue the Graduate Certificate in Weather and Climate Analytics, complete an online Graduate School Application Form by clicking on the “Apply Now” link at [**worldcampus.psu.edu/climate/apply**](https://worldcampus.psu.edu/climate/apply).

Contact Us

To learn more about the Graduate Certificate in Weather and Climate Analytics, offered online through Penn State World Campus in partnership with Penn State's College of Earth and Mineral Sciences, please contact:

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