

# GEOG 279 : PHYSICAL GEOGRAPHY: FROM SEVERE WEATHER TO CLIMATE CHANGE

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## Transcript title

Phys Geog: ClimateWeather

## Credits

4

## Grading mode

Standard letter grades

## Total contact hours

60

## Lecture hours

30

## Lab hours

30

## Course Description

Introduces the basics of weather and climate and the differences between the two. Investigates the factors that lead to daily variations in weather and its prediction. Understand the causes of climate change, including the contribution of human activity and how climate change can be mitigated.

## Course learning outcomes

1. Interpret climate from a climograph.
2. Explain how the tilt of the earth on its axis affects surface temperature, seasons, and climate.
3. Predict areas of precipitation based on temperature and humidity data.
4. Rank how various human activities contribute to climate change.

## Content outline

1. Earth's place in the solar system
2. Earth-sun relationships
3. Insolation and radiation
4. The atmosphere's structure
5. Atmospheric energy
6. Global temperature
7. Global circulation in the atmosphere and oceans
8. Atmospheric moisture, humidity, and condensation
9. High-altitude winds
10. Air masses
11. Atmospheric lifting mechanisms
12. Midlatitude cyclonic storm systems
13. Severe weather
14. Climate classification and regions

15. Biomes

16. Climate change

## Required materials

Textbook is required.

## General education/Related instruction lists

- Science Lab