
SECTION HEADING

GEOG 2140: Natural Disasters and Meteorology

Description

Natural Disasters and Meteorology studies atmospheric processes and the human and economic consequences of natural disasters due to extreme weather events such as tornadoes, hurricanes, flooding, wildfires, and other natural phenomena. Disaster analysis, storm spotter training, and preparedness and mitigation will also be addressed.

Credits

3

Prerequisite

STSK 0095 or placement by multiple measures

Topics to be Covered

1. Natural Disasters and the Human Population
2. Fundamental Processes in Meteorology
3. Insolation, Heat, and Temperature
4. Air Pressure, Air Masses, and Wind
5. Moisture and Condensation
6. Tornadoes and Hurricanes
7. Flooding and Landslides
8. Drought and Wildfires
9. Other Severe Weather
10. Coastal Processes and Climate Change
11. Tsunami versus Wind-Caused Waves
12. Disaster Preparedness and Mitigation
13. Storm Spotter Training
14. Hazard City Disaster Analysis

Learning Outcomes

1. Explain the role insolation plays in the development of weather systems.
2. Analyze the role of moisture in our atmosphere as it relates to severe weather.
3. Compare and contrast different weather-related phenomena.
4. Identify the processes involved in extreme weather events.
5. Identify global geographic patterns of severe weather and natural disasters.
6. Investigate current natural disasters and the human and economic consequences.
7. Assess how human activities contribute to various natural disasters.
8. Conduct disaster analysis to identify preparedness and mitigation strategies.

Credit Details

Lecture: 3

Lab: 0

OJT: 0

MnTC Goal Area(s): Goal Area 10 - People and the Environment

Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal Area 10: People and the Environment

Section Heading

1. Discern patterns and interrelationships of bio-physical and socio-cultural systems.
2. Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
3. Propose and assess alternative solutions to environmental problems.
4. Articulate and defend the actions they would take on various environmental issues.