

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. GEOG

COURSE NUMBER: 2140

NUMBER OF CREDITS: 3

Lecture: 3 Lab: 0 OJT: 0

Course Title:

Natural Disasters and Meteorology

Catalog 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. Prerequisite: STSK 0095 or placement by multiple measures.

Prerequisites or Necessary Entry Skills/Knowledge:

STSK 0095 or placement by multiple measures.
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FULFILLS MN TRANSFER CURRICULUM AREA(S) *(Leave blank if not applicable)*

Goal 10: People and the Environment: X by meeting the following competencies:

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

Topics to be Covered

Natural Disasters and the Human Population
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Fundamental Processes in Meteorology

Insolation, Heat, and Temperature

Air Pressure, Air Masses, and Wind

Moisture and Condensation

Tornadoes and Hurricanes

Flooding and Landslides

Drought and Wildfires

Other Severe Weather
Coastal Processes and Climate Change
Tsunami versus Wind-Caused Waves
Disaster Preparedness and Mitigation
Storm Spotter Training
Hazard City Disaster Analysis

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

Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<small>*If yes, please list the competencies below</small>	

Revised 12/9/2021