SCI107C : Introduction to Meteorology

Introduces the fundamentals of weather and climate. Topics include observing weather, physical properties and processes of the atmosphere, weather systems, hazardous weather (thunderstorms, tornadoes, and hurricanes), basics of forecasting, clouds, air pollution, and climate change. The lab component consists of group exercises, hands-on experiments, and use of the internet to explore the topics of weather. This course requires regular student access to the internet.

Credits 4

Lab/Practicum/Clinical Hours 2

Lecture Hours 3

Learning Outcomes

- Describe, measure, and interpret the basic physical properties of the atmosphere, and relate them to observed weather phenomena.
- Understand daily and seasonal weather changes and the daily weather reports and forecasts provided by the media.
- Analyze, interpret, and evaluate numerical weather data, maps of surface, upper-air and forecast weather, and satellite and radar images.
- Understand that apparently random weather conditions are related to organized weather systems that develop and move in ways that can be understood and predicted.
- Compare and contrast the structure and development of basic weather systems, and relate them to associated weather conditions.
- Describe forms of severe weather, articulate the hazards associated with each, and prescribe safety practices to protect life and property.
- Relate the science of meteorology to real-life experiences.
- Discuss the intricacies and limitations of weather forecasting.
- Discuss and appreciate the complexity of Earth's climate system and uncertainties regarding global climate change.