



METEOROLOGY

Insert Teacher Name

Insert Room Number

Semester

Insert Period

Insert Email Address

COURSE DESCRIPTION

Meteorology, which is a laboratory-based and technology-based course, will promote and cultivate the development student scientific inquiry and scientific method skills, which are important critical thinking skills. Meteorology is particularly suited to these aims because it is an applied science that readily lends itself to familiar everyday life. Weather is not an arbitrary act of nature, weather forecasting has its limits, and the climate future is uncertain. The emphasis on scientific methodology provides a perspective on the accomplishments of meteorologists and the challenges still facing them.

Topics that will be covered include 1) how we monitor the weather through local weather stations, radars, and satellites, 2) how the interactions between temperature, air pressure, wind, humidity, and precipitation create our weather, and 3) how to forecast the weather on a daily basis. Other topics include severe weather, like tornados, hurricanes, and thunderstorms/lightning, and weather human hazards like global climate change, all of which will be embedded within curriculum.

COURSE OBJECTIVES

Students will understand that:

- scientific inquiry progresses through a continuous process of questioning, data collection, analysis and interpretation.
- scientific inquiry requires the sharing of findings and ideas for critical review by colleagues and other scientists.
- scientific inquiry is a thoughtful and coordinated attempt to search out, describe, explain and predict natural phenomena.
- scientific literacy includes the ability to search for and assess the relevance and credibility of scientific information found in various print and electronic media.
- scientific numeracy includes the ability to use mathematical operations and procedures to calculate, analyze and present scientific data and ideas.
- climate is the long-term average of a region's weather and depends on many factors.
- life has changed Earth's atmosphere, and changes in the atmosphere affect conditions for life.
- energy enters the Earth system primarily as solar radiation and eventually escapes as heat.
- heating of the Earth's surface and atmosphere by the sun drives convection within the atmosphere, and oceans, producing winds and ocean currents.

UNITS OF STUDY

- Weather Monitoring
- Seasonal Solar and Terrestrial Radiation
- The Diurnal Cycle
- Weather Systems
- Weather Forecasting

COURSE POLICIES AND REQUIREMENTS

GRADING

Summative Assessments:

90%

Insert Categories/Weighting (ie. Papers – 30%)

Formative Assessments: **10%**
Insert Categories/Weighting (ie. Quizzes – 50%)
Behavioral Characteristics: **0%**
Insert Categories/Weighting (ie. Particip. - 90%)
Insert Additional Grading Information Here

MATERIALS

Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters)

EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here