
PETERS TOWNSHIP HIGH SCHOOL

COURSE SYLLABUS: GEOSCIENCE ACADEMIC

Course Overview and Essential Skills

Science is the search for truth through the logical sequence of observation, formation of hypothesis, testing by experiment, and forming conclusions to devise general principles about the workings of the natural world. The Geoscience Academic course explores the many different sciences of Earth and Space sciences including mapping, meteorology, oceanography, astronomy and earth resources. This course seeks to give students a global perspective of Earth's many processes and interactions and how humans interact and impact those processes. Students should gain critical thinking, writing and presentation skills through the coursework during the year.

Course Textbook and Required Materials

- *Glencoe Earth Science: Geology, the Environment & the Universe*. Columbus, OH: McGraw-Hill, 2017. Print.
- Other: <https://connected.mcgraw-hill.com>
- 1.5 inch binder, writing utensils, calculator

Course Outline of Material Covered:

Unit or Topic	Concepts/Skills/Resources	Timeframe
Earth Science Introduction	Topics and technology used by Earth scientists, mapping, and geologic time.	3 Weeks
Meteorology/Oceanography	Atmosphere, Meteorology, Nature of Storms, Climate including WeatherBug labs, isopleth mapping and Billion Dollar Storm Project, portfolio creation, interpreting numerical data and analyzing computer based models. Physical Oceanography, The Marine Environment, including portfolio creation, note-taking and laboratory modeling skills.	15 Weeks
Beyond Earth	The Sun-Earth-Moon System, Our Solar System, Stars, Galaxies and the Universe including H-R Diagram lab, Galaxy Classification, portfolio creation, note-taking skills, internet research, Apollo 13	12 Weeks
Resources and the Environment	Energy resources and humans impact on the environment including portfolio creation, note-taking and laboratory modeling skills.	5 Weeks

****Depending on the needs of the class or changes in the school year, the course outline is subject to change.***