ERTH 101 : Introduction to Geology

Credits: 3
Class Hours: 3 lecture
Prerequisites: Qualified for ENG 100 and MATH 82X.
Corequisite Courses:
ERTH 101L
Description: This course is a study of the principles of physical geology, the composition and structure of the earth, and the processes shaping the earth's surface. We'll study geology as it affects our lives and shapes our landscape including volcanoes, earthquakes, tsunamis, and other processes such as weathering and mountain building that evolve or act over extremely long time periods. The course also explores the very nature of science and scientific inquiry through the unifying theory of plate tectonics, a dramatic example of how new evidence and understanding can revolutionize a scientific discipline.
Semester Offered: Fall, Spring
Designation:
Diversification: Physical Sciences — DP
Course Student Learning Outcomes (CSLOs):

1. Describe how the atomic structure of minerals is related to large-scale properties of the minerals, materials formed from the minerals (e.g. lava, magma, and rocks), and even the character of entire landscapes.
2. Describe the theory of plate tectonics and how it can explain observed soil, rocks, geographic features, and hazards on varying time and space scales.
3. Formulate reasonable interpretations of geological processes using historical, descriptive, systems-oriented, and/or experimental approaches.
4. Describe the internal features of Earth and how these features are studied and inferred.
5. Describe the rock cycle including descriptions of the three major rock types, their origins, and processes by which rocks can change from one type to another.