GEOL& 101L: INTRODUCTION TO PHYSICAL GEOLOGY

Introduction to geology for those intending to major in geology, geophysics, or related earth sciences. Tectonics, volcanism, earthquakes, introductory concepts of mineralogy and petrology, and survey of processes that shape the surface of the earth, including water, wind, ice, and gravity. Four hours lecture, two hours laboratory per week. (NS)

Course Student Learning Outcomes

- 1. Distinguish between the three major rock types (i.e., igneous, sedimentary and metamorphic) as well as identify, describe and explain the economic value of common rocks and minerals.
- 2. Outline the biological, chemical and physical evolution of our planet.
- 3. Explain the process of fossilization and identify common fossils.
- 4. Identify and explain common land forms and the geological processes that led to their formation.
- 5. Describe the processes of volcanism, metamorphism and earthquakes and identify the various types of volcanic and metamorphic processes.
- 6. Identify and explain the theory of plate tectonics and discuss the evolution of the continents.
- 7. Identify and explain the basic zones and properties of the Earth's interior.
- 8. Participate in a field trip around the Olympic Peninsula to conduct field investigations that include descriptions and measurements of various formations that will culminate in the writing of a geological report.

Credits: 5

Prerequisites: Eligibility for both ENGL& 101 and MATH 090/091; CHEM&110L or equivalent recommended. Program: Geology