

Upon successful completion of the GEOL M02L course, a student should be able to:

1. identify common minerals, fossils, and rocks.
2. distinguish, classify, and identify igneous, sedimentary, and metamorphic rocks and determine the processes and conditions that formed them.
3. interpret the paleoenvironment and geologic history of an area using rocks and fossils.
4. prepare a paleogeographic or geologic map by analyzing spatial distribution of rocks.
5. use topographic maps to determine elevation, height, evaluate steepness of slope, and to locate and identify landscape and cultural features.
6. measure distances and calculate gradients and rates of geologic processes using maps.
7. account for the immensity of geologic time, define the geologic eras, and place some well-known events in the context of the geologic time scale.
8. recognize and analyze geologic structures using a variety of media: maps, 3-D models, block diagrams.
9. interpret and apply geologic maps and cross sections to identify rocks and geologic structures and evaluate geologic hazards for an area.
10. measure and identify volcanic features on aerial photographs, maps, and satellite images.
11. recognize fluvial and coastal landforms on topographic maps, aerial photographs, and interpret erosional and depositional processes.
12. identify and draw sketches of rocks, geologic structures, and landforms examined by direct observations during required field trips.