

Course Outline for: GEOL 1111 Environmental Geology Lab**A. Course Description:**

1. Number of credits: 1
2. Lecture hours per week: 0
Lab hours per week: 2
3. Prerequisites: none
4. Corequisites: none
5. MnTC Goals: none

This course is an optional "add-on" lab for students who also take GEOL1110-Environmental Geology. This course plus GEOL1110 (taken in any sequence) fulfills a Goal 3 lab science requirement.

B. Date last revised: October 2023**C. Outline of Major Content Areas:**

1. Geologic Hazards
2. Geologic resources and issues
3. Environment and human activity
4. Climate change
5. Topographic map reading

D. Course Learning Outcomes:

Upon successful completion of the course, the student will be able to:

1. Interpret and analyze graphic data bases, including a variety of maps, data tables, figures, and graphs.
2. Demonstrate a working knowledge of the scientific method by formulating hypotheses about environmental processes, collecting and analyzing data, and assessing the validity of your hypotheses based on your data analysis.
3. Communicate lab analyses and conclusions both orally, within lab work groups, and in the form of prepared written responses
4. Explain using scientific theories how geological processes function and interact.
5. Describe the fundamental interrelatedness of geological systems and socio/cultural systems in the terms of some of the ways in which people affect the environment and the ways in which humans adapt to natural systems.
6. Describe the range of responses that have been developed by various political and social institutions to meet the challenges of natural resources management.
7. Develop a basis for evaluating critical environmental issues and their solutions from a scientific perspective.
8. Create appropriate personal responses to a variety of environmental issues using a critical perspective.

E. Methods for Assessing Student Learning:

Methods for assessment may include, but are not limited to, the following:

1. Lab exercises
2. Lab exams

F. Special Information

None