

Course Outline for: GEOL1110 Environmental Geology**A. Course Description**

1. Number of credits: 3
2. Lecture hours per week: 3
3. Prerequisites: None
4. Corequisites: None
5. MnTC Goals: Goal #3 - Natural Science
Goal #10 – People and the Environment

This course investigates the relationship between people and the environment, focusing on the distribution and use of geologic resources, natural hazard and their effects on human activity, and human impacts on the physical environment.

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

1. Geologic Hazards
2. Geologic resources and issues
3. Environment and human activity
4. Climate change

D. Course Learning Outcomes

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

1. Explain using scientific theories how geologic processes function and interact (Goal 3a).
2. Explain the Earth's geologic systems both verbally and quantitatively including the various components of the earth, their controls, their interrelationships, and their global regional distribution. (Goal 2c, 3a, 3c)
3. Explain the fundamental interrelatedness of geological systems and socio/cultural systems in terms of some of the ways in which people affect the environment and the ways in which humans adapt to natural systems. (Goal 2c, 2d, 10a, 10b, 10c)
4. Communicate an understanding of the process of scientific inquiry as it relates to the earth sciences, including the formulation of hypotheses, collection and analysis of data, and assessment of the validity of hypotheses and forecasts. (Goal 2a, 2b, 2c, 2d, 3b, 3c)
5. Evaluate the range of responses that have been developed by various political and social institutions to meet the environmental challenges of energy, mineral and/or water resource management. (Goal 2d, 3d, 10a, 10c, 10d, 10e)
6. Discuss appropriate human responses to issues related to environmental hazards. (Goal 2a, 2b, 2c, 2d, 10e, 10f)

E. Methods for Assessing Student Learning

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

1. Exams
2. Assignments
3. Quizzes

F. Special Information

None