# ENV 270C - PRECAMBRIAN GEOLOGY OF MI

## **Course Description**

This course is a six-day field study of the Precambrian geology of the western Upper Peninsula of Michigan. The class will focus on rock and mineral identification, economic geology, and the geologic history of Michigan's Upper Peninsula. The relationships of ancient bedrock layers to recent surficial geologic processes and their associated landforms will also be explored. Group 1 course.

## **Credit Hours**

2

### **Contact Hours**

3

### **Lecture Hours**

1

## **Lab Hours**

2

## **Required Prerequisites**

Completion of any science course with laboratory and instructor permission.

## **Recommended Prerequisites or Skills Competencies**

ENG 111, MTH 23

## **General Education Outcomes supported by this course**

Communications - Direct

## **Course Learning Outcomes**

### Knowledge:

- Use the physical properties of rocks and minerals to identify unknown specimens.
- Record and plot GPS coordinates, measure compass directions, read and use geologic maps, and stratigraphic columns.
- · Generate field notes with pertinent observations and field sketches.

#### Application:

- Prepare a collection of identified rocks and minerals found throughout the western Upper Peninsula of Michigan.
- Interpret rocks discovered to develop an understanding of past geologic events.
- Explain how rocks and minerals collected may be utilized as natural resources.

### Integration:

 Conduct a geologic field investigation to prepare a geologic field report.

#### Human Dimension:

· Relate geologic materials to resources they use in their daily lives.

### **Caring - Civic Learning:**

 Connect past geologic events with the distribution of natural resources and the history of mining activities within our state.

### Learning How to Learn:

 Relate their course concepts to geological features in real-world applications.