

# ENV 270A - MICHIGAN BASIN GEOLOGY

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- Connect past geologic events and developments in evolution with the occurrence of natural resources and modern ecosystems.

## Learning How to Learn:

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

## Course Description

This course is a six-day field study of the Michigan Basin. The class focuses on the Paleozoic geologic history, fossil record, and economic geology of the lower Peninsula and eastern Upper Peninsula. The relationships of bedrock layers to recent surficial geologic processes and their associated landforms will 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.
- Identify and classify unknown fossil specimens.
- Generate field notes with pertinent observations.

### Application:

- Prepare a collection of identified rocks, minerals, and fossils found throughout the northern lower and eastern upper peninsula.
- Interpret rocks and fossils discovered to develop an understanding of past depositional environments.
- 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 geological materials to resources they use in their daily lives.

### Caring - Civic Learning: