

## Earth Sciences 583.03: Geologic Setting of Lake Erie

Quarter Credit Hours – 3 under/grad

### Prerequisites

In-service teacher, non-formal educator, or education major with junior rank or above by summer of enrollment OR permission of instructor.

### Course Content and Objectives

This course will be a week-long fieldtrip, offered through O.S.U.'s Stone Laboratory program, to examine the geologic features exposed along the southern shore of Lake Erie. The objective of the course will be to interpret the geologic history of Ohio and the Lake Erie basin from the features observed, and to understand the relationships between human activity and the geology of the area.

### Grades

Students will be evaluated on the basis of their field notes, their answers to questions in the fieldtrip guidebook, and their participation in discussions in the field.

### Schedule

- Sat. Meet at Fawcett Center, OSU, and drive to Catawba Point. Take ferry to South Bass Island, and transfer to Gibraltar Island. Evening lecture, "Introduction to the geology of Ohio."
- Sun. Field trip to Kelleys Island to examine glacial grooves and Columbus Limestone in old quarries. Return to Catawba Point, and drive to East Harbor State Park. Measure offshore profile at East Harbor State Park. Stay overnight in Sandusky, Huron or Norwalk.
- Mon. Examine coastal processes and human interactions with lake shoreline at Huron Harbor and Old Woman's Creek. Measure beach profile at Old Woman's Creek. Drive to the west side of Cleveland, and examine Devonian through Mississippian outcrops in the Rocky River valley. Stay overnight in the Cleveland area.
- Tues. Possible visit to Cargill salt mine in Cleveland. Examine Devonian through Pennsylvanian outcrops in the Cuyahoga Valley National Recreation Area. Stay overnight in the Cleveland area.
- Weds. Examine beach processes, lakeshore erosion, and human interactions with Lake Erie in Lake and Ashtabula counties. Stay overnight in Ashtabula or Conneaut.
- Thurs. One-day trip to Niagara Falls and the Niagara Gorge. Examine a classic sequence of Ordovician through Silurian rocks, and discuss the geomorphology and glacial history of the region. Stay overnight in Ashtabula or Conneaut.
- Fri. Return to Columbus, arriving in the early afternoon at the Fawcett Center.

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**Costs**

**In addition** to normal tuition, fees payable to The Ohio State University are \$375. This includes

- Lodging at Stone Lab on Saturday night and in hotels during the week
- Three meals at Stone Lab (dinner on Sat, July 18; breakfast & sack lunch on Sun, July 19)
- Transportation
- Lab fee
- Course handouts

**You will also be responsible** for the costs of your own meals from Sunday dinner through Friday lunch. We anticipate using low-cost meal opportunities as much as possible.

**Lodging**

We will be staying in the dormitories at Stone Lab on Saturday, and at motels the other nights. You will need either a sleeping bag or your own sheets and pillowcase, plus a towel, for the night at Stone Lab. On the other nights, each motel room will have two double beds; in order to minimize costs, however, each room may have more than two occupants. As a result, some of you may choose to sleep in sleeping bags in the motel rooms, as well.

**Equipment and Supplies**

You should expect to bring along “normal” field equipment for this trip – raingear, sturdy footwear, hat, sunscreen, etc. Our work along the lakeshore will involve some wading, so you should also bring footwear and clothes that can get wet. You will need a field notebook (preferably with waterproof paper), ruler, pencils and pens, and a collection of 5-6 colored pencils. You may want to bring a camera, hand lens, and rock hammer, if you have them.