EEOB 4950: Field Ecology

Instructor
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Course Logistics
One-week course held at Stone Laboratory, Put-in-Bay, Ohio, July 23 - July 29, 2017.
Sunday check-in and orientation. Class meets Sunday evening; Monday-Friday, 8 am - 5 pm with breaks for lunch and dinner (further evening class activities may also be scheduled); and Saturday, 8 am – 12 pm.

Course Format
2 semester credit hours consisting of lecture, field work and laboratory time

This one-week, residential course immerses students in place-based learning from morning to night. Lectures and most lab work take place in classrooms at The Ohio State University’s Stone Laboratory. Field work takes students to quarries, forests, beaches, creeks, streams, ponds, estuaries, and the open lake.

Course Description
This course is an intensive one-week introduction to field ecology for teachers, upper-level undergraduates, and graduate students. This course will be a broad, field-based introduction to the distribution and abundance of animals and plants (both macroscopic and microscopic), aquatic and terrestrial habitats, and techniques for the collection and identification of these organisms, as well as analyzing their environments. Pond, lake, river, marsh, beach, field, and woodland habitats will be investigated. Basic statistical and data analysis techniques will also be covered.

Course Materials
Various texts will be available for use in class. No text is required for purchase.

Field notebook (Write-In-the-Rain)
Course Outline (Subject to Change)

Sunday  
**Afternoon:** Introduction to course  
**Evening:** What is ecology? General ecological principles. Introductory statistics.

Monday  
**Morning:** Lecture: Plant succession and geology of Lake Erie Islands  
**Afternoon:** Terrestrial Fieldtrip- South Bass Island (Fields)  
Activity: Determine forest composition and observe stages of succession.  
**Evening:** Quiz. Work on statistics assignments.

Tuesday  
**Morning/Afternoon:** Terrestrial Fieldtrip- Kelleys’ Island (Quarries)  
Goal: Examine geology/fossil organisms and terrestrial habitats.  
Terrestrial Fieldtrip- Kelleys’ Island (Woods)  
Activity: Determine forest composition and compare with Monday  
Terrestrial /Aquatic Fieldtrip- Carp Pond (Beach/Marsh)  
Activity: Examine transitional zones between aquatic and terrestrial habitats.  
**Evening:** Quiz. Lecture: River ecosystems

Wednesday  
**Morning:** Aquatic Fieldtrip- Old Woman Creek (Lake, Lacustuary, Upstream Reaches)  
Activity: Collect fish and macroinvertebrates and determine IBI and SQM  
**Afternoon:** Aquatic Fieldtrip- Huron River  
Activity: Collect fish and macroinvertebrates and determine IBI and SQM and compare these with Old Woman Creek.  
**Evening:** Quiz. Lecture: Lake ecosystems

Thursday  
**Morning:** Aquatic Fieldtrip- Lake Erie (near Rattlesnake Island)  
Activity: Collect fish, zooplankton, phytoplankton, and benthos and take physical measurements.  
**Afternoon:** Laboratory: Identification of fish, zooplankton, phytoplankton, and benthos.  
Activity: Determine density and diversity of fish and zooplankton.  
**Evening:** Quiz. Lecture: Pond ecosystems, wetlands, and aquatic macrophytes  
Guest Lecture: TBA

Friday  
**Morning:** Aquatic Fieldtrip- Terwilliger’s Pond, Hatchery Bay and Alligator Bar  
Goal: Collect aquatic macroinvertebrates and aquatic macrophytes.  
Laboratory: Identification of macroinvertebrates and aquatic macrophytes.  
**Afternoon:** Review for written test and laboratory practical. Course evaluations.  
**Evening:** Field notebooks due. Study for lab practical and written exam.

Saturday  
**Morning:** Laboratory Practical Exam- (1 hour-stations, 1 hour-quantitative), Written Exam- (1 hour).

Note: Morning sessions will last from 8AM until noon, afternoon sessions will last from 1PM until 4PM, and evening sessions will last from about 6:30PM until 9:00PM.
**Major Assignments**
Assignments will include 4 Quizzes, Field Notebook, Statistics Assignment, 3 Data Analysis Assignments, Lab Practical, and Written Exam.

**Research Briefs and Guest Lectures**
Stone Lab offers an excellent seminar series during the summer, with nationally and internationally known scientists, managers, and policy makers. This term the research briefs and guest lectures are all germane to Ecology. Students in Field Ecology are required to attend these lectures. They occur on Thursday evenings from approximately 7-9 PM. Material presented in these lectures will be covered on tests.

**Late Assignments**
Late assignments will be assessed a **10% per day penalty** (including weekends).

**Grading Information**

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<tr>
<th>Assignment</th>
<th>Points</th>
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<tr>
<td>4 Quizzes (25 points each)</td>
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<td>Field Notebook</td>
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<td>Statistics Assignment</td>
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<td>Data Analysis Assignments</td>
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<td>Lab Practical</td>
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<td>Written Exam</td>
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<td><strong>Total</strong></td>
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**Grading Scale**

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<tr>
<th>Grade</th>
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**Attendance Policy**
Students are expected to actively participate in all class sessions, including lectures, fieldwork and laboratory time.

**Academic Misconduct**
It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed: illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct [http://studentlife.osu.edu/csc/](http://studentlife.osu.edu/csc/).

**Disability Services**
Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 614-292-3307, TDD 614-292-0901; [http://www.wds.ohio-state.edu/](http://www.wds.ohio-state.edu/).