Syllabus
Biological Sciences 0390: Ecology Laboratory Fall 2021

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Laboratory Location: 170 Crawford Hall (use Langley main entrance and enter Crawford Hall from the 2nd floor of Langley)

Office Hours: Office hours will vary by instructor and these hours will be provided during the first week of class.

Text: We will use some sections of Testing Ecological Theory prepared by M. Henry H. Stevens, Zachary T. Long, Rachel Collins, Daniel E. Bunker, George Meindl, Sarah Pasquini, Michelle Spicer, and Walter Carson. All course material will be provided on Canvas and updated throughout the semester.

Course Overview: This course consists of an introduction to laboratory and field studies in ecology. Its goals are: (1) To provide students with experience in using basic ecological techniques; (2) To illustrate ecological principles through laboratory and field work; (3) To give students an opportunity to develop skills in generating hypotheses, designing experiments, analyzing data, evaluating results, and writing a complete scientific paper.

Masks required: Masks are required inside Crawford Hall and inside the classroom. Students who refuse to wear a mask and wear it in properly (not coving both mouth and nose) will be asked to leave the building and this would constitute an unexcused absence.

Lectures This course will be **in person** unless the university posture on Covid changes during the semester. If that happens, this course will be delivered in the following ways. Under High Risk, this course will be 100% online. Under Elevated or Guarded Risk, this course will include in-classroom instruction where up to 5 students (out of 16) will be able to attend each class

meeting, or in some cases we will remain entirely remote depending upon the content of any given week. If we go remote, students may participate synchronously via Zoom and all lectures will be recorded and made available for later viewing asynchronously. We will be using Canvas as the Learning Management System and all class material can be found there. Changes to modes of instruction and course adjustments will be announced on Canvas as needed.

Disabilities: If you have a disability for which you require accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 140 William Pitt Union, 412-648-7890 or 412-383-7355 (FTY), as early as possible in the term. Disability Resources and Services will verify your disability and determine reasonable accommodations for this course.

Grading: Assignments and Lab Reports are due on the day your class meets by midnight. Any work submitted thereafter will be considered late and will lose 10% per day until turned in. In this course, students will commonly work in groups of four to collect data and to write reports. Written work including tables and figures should be 100% effort of your group alone, and **not** other groups, unless your instructor tells you that you may work with other groups. Your grade will be determined by the total points you earn on assignments, lab reports, and the final scientific paper.

Regrades: If you feel points were taken off an assignment that should not have been, you may present your graded paper, with a written explanation of why you think the points should not have been taken off, to your instructor up to one week after your assignment is handed back. Grades will not be revised after one week.

Academic Integrity: Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for an examination or paper will be imposed but more likely a failing grade for the course. For more information, see: http://www.as.pitt.edu/fac/policies/academic-integrity.

Email Policy: Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this

account on a regular basis. Failure to read and react to university communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. Please see the University's email policy (http://www.cfo.pitt.edu/policies/policy/09/09-10-01.html).

Assignment	**Points**
Scientific Method and Hypothesis Testing	10
Impoverished Eastern Deciduous Forests – Hypotheses Presentation	50
Exotic Species and the Enemy Release assignment	20
Insect Herbivory and Plant Performance assignment	50
Impoverished Eastern Deciduous Forest – Research Presentations	100
Final Scientific Paper (Class Experiment)	150
Total	**380**

Ecology Lab Schedule

Week	Week of	Laboratory
1	Aug. 30	1. Scientific Method and Hypothesis Testing 2. Impoverished Eastern Deciduous Forests **Scientific Method and Hypothesis Testing assignment due at the end of class.**
2	Sept. 6	No Class. But students should meet with the members of their group to develop hypotheses to explain impoverished eastern forests.
3	Sept. 13	Impoverished Eastern Deciduous Forests Virtual tour of a local forest using drone footage and discussion of Spicer et al. 2020. *In addition, each group will meet with instructor for 30 minutes to discuss their progress and hypotheses.*
4	Sept. 20	Impoverished Eastern Deciduous Forests *Each group will meet separately with their instructor for 45 minutes to discuss their progress and hypotheses.*
5	Sept. 27	Impoverished Eastern Deciduous Forests **Each group will present their hypotheses regarding the causes of impoverished eastern deciduous forests.** Students will vote for the field research among the group presentations that will be conducted in the field on Oct. 9 & 10 (5 extra credit points for the winning project).
6	Oct. 4	Design and implementation of field studies. The entire class will work with their instructor to design their field study and identify all equipment needed to complete the study during one full day at Chatham.
7	Oct. 9 &10	Field trip to the Eden Hall Campus of Chatham University. **The field trip is mandatory**. Please see below for details.
8	Oct. 11	Exotic Species and the Enemy Release Hypothesis. Introduction to writing scientific papers (see “A primer on how to write a scientific paper”).
9	Oct. 18	Insect Herbivory and Plant Performance Lab. **Exotic Species and the Enemy Release Hypothesis assignment due.**
10	Oct. 25	Process class experimental data. Each group will meet separately with their instructor to work on the Insect Herbivory and Plant Performance Lab and begin work on the data set from Chatham University.
11	Nov. 1	Impoverished Eastern Deciduous Forest meetings *Each group will meet with their instructor for 45 minutes to discuss their progress on analyzing the data from Chatham University.* **Insect Herbivory and Plant Performance assignment due**
12	Nov. 8	Impoverished Eastern Deciduous Forest Research Presentations. Each group will present the results from the data collected at Chatham University.
13	Nov. 15	Each research group should schedule a meeting with their instructor to discuss their final paper. **Research paper due Friday December 3, 11:59 pm EST.**

Information for the Eden Hall Campus of Chatham University Field Trip

The Eden Hall Campus of Chatham University field trip is scheduled on Saturday, October 9 and Sunday, October 10 (rain or shine). The field trip is required to pass the course.

When to meet: The Monday lab and both Tuesday labs will meet at 8:30 am on Saturday, October 9. The Wednesday and Thursday labs will meet at 8:30 am on Sunday, October 10.

Where to meet: Meet at 8:30 am SHARP in the RA parking lot across from the loading dock of Clapp Hall. Your instructors will be there to meet you. Set two alarm clocks or use the buddy system. There will be a large bus there to take you to the Eden Hall Campus of Chatham University. You may not drive separately to the field trip. We will return to Pitt sometime before 6:30 pm. MASKS MUST BE WORN ON THE BUS.

What to wear: You will be outside most of the day, dress appropriately. Long pants and appropriate footwear are required due to poison ivy and thorny shrubs. We recommend wearing long socks with your pants tucked in.

What to bring: Bring a notebook or loose-leaf paper, something to write on and with, sun-block, a water bottle, rain gear, footwear suitable for wet, muddy, thorny, field conditions (i.e., close-toed shoes or boots). If it is raining you may want to bring a change of clothes. Please check the weather forecast. If you are allergic to bee-stings, bring a bee-sting kit and also any medication you may be taking (i.e., asthma inhaler), etc. YOU MUST BRING YOUR OWN LUNCH.

A note on ticks: There are ticks at the field site. You may want to buy a bottle of permethrin (an effective insect repellent for ticks and mosquitos) to spray on your clothes but do this ahead of time because your clothes must dry after being sprayed which can take several hours to a day. Do NOT spray permethrin on your skin. You may want to also use a standard insect repellent like Off.