

**LAB SYLLABUS**  
**BIOL 4406,5407 Ecology Spring 2019**

**Instructor:** Sean P. Graham, PhD  
**Laboratory:** Wednesday 3-415 WSB 107  
**Office:** WSB 221

**Office Hours:** T-Th 9-11 F 11-12  
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**Laboratory:** Much of the material covered in lecture will be greatly enhanced and expanded in the laboratory component of this course. You will be tested on this material during the scheduled exam periods. You need to check Blackboard to download and print any lab notes preceding each meeting.

**Attendance:** is required for labs. No lab make ups are possible. Missing labs will seriously hinder your ability to make good grades on lab practicals. Lab practicals are impossible to re-take. Missing a lab practical will result in a 0 for that test, and this will seriously affect your grade.

**Supplies:**

Field notebook

**Lab Grading:**

3 lab practicals @ 100 pts ea	300
Field notebook	50
<b>TOTAL</b>	<b>350 points</b>

**Student Learning Outcomes (SLOs) for Biology:**

- 1) Demonstrate an understanding of evolution by natural selection.
- 2) Demonstrate an integration of environmental awareness into everyday modern life.
- 3) Demonstrate an understanding of how to incorporate molecular biology into the study of the whole organism.
- 4) Demonstrate utilization of various field techniques toward addressing scientific questions in the discipline.
- 5) Conduct basic laboratory experiments utilizing standard observational strategies.

**Student Learning Outcomes (SLOs) for Biology, MS:**

1. Understanding and implementation of scientific methodology
2. Utilization of field techniques toward addressing scientific questions\*
3. Be able to utilize statistics toward the analysis of data within the discipline
4. Be able to effectively disseminate scientific findings using both written and oral communication.

## **TENTATIVE SCHEDULE**

**Tentative schedule** (subject to change)

<b>Week</b>	<b>Topic</b>
1	No lab first week
2 Jan 30	Introduction: Climate (Hancock Hill N and S slopes) – outside
3 Feb 6	Plant Adaptations – outside
4 Feb 13	Animal Adaptations-outside
5 Feb 20	Population Ecology (cemetery demography) – outside
6 Feb 27	Mutualism (pollinators) – outside
7	<b>Lab practical #1 March 6</b>
8 Mar 13	Competition (microbial) – inside
Spring Break	
9 Mar 27	Predation (shrike larder) – outside
10 Apr 3	Facilitation (nurse plants)– outside
11 Apr 10	Parasitism (creosote and gall wasps)– outside
12 Apr 17	<b>Lab practical 2 April 17</b>
13 Apr 24	Herbivory (harvester ants)– outside
14	<b>Epic optional Guadalupe Mountains Field Trip! April 19-21</b>
14 May 1	Disturbance and succession (grazing) – outside
15	Community ecology (Davis Mountains) – outside
16 May 8	<b>Lab practical #3 *last day of class for us (May 8)</b>

**Students with disabilities will be provided reasonable accommodations. If you would like to request such accommodations because of a physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility at 837-8203, FH 112.**