Principles of Ecology and Evolution Lab Syllabus and Policy
Summer II 2019
Bio 125.916 and Bio 125L.916

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* All contact via e-mail should be professional in manner with proper punctuation and grammar. Your name and your lab section should be included in the body of any email correspondence. E-mails sent in an unacceptable format will not be answered.

* Do not contact me through D2L. I will not respond. Only use my SFA email (sullivanjb@sfasu.edu).

Phone: (936) 468-5987
Office: S108
Office Hours: MTWR By appointment
Class Meeting Time & Place: Virtual Classroom

Required Materials: Subscription to SimUText computer simulations. Registration information will be provided on D2L. Students must be registered by the first lab meeting.

Course Description: One semester hour, two hours lab per week. Fundamental principles of animal life, including invertebrate and vertebrate animals. Required lab fee.

Pre-requisites: None

Co-requisite: BIO 125 Lecture

Program Learning Outcomes:

- PLO 1. The student will demonstrate a good knowledge base in biological concepts. (SLOs 1, 5, 6)
- PLO 2. Clearly articulate scientific information in oral form. (SLOs 3-6)
- PLO 3. Clearly articulate scientific information in written form. (SLO 3-6)
- PLO 4. Be able to design, carry out, and analyze experiments to answer biological questions. (SLOs 1, 2)
- PLO 5. Demonstrate teamwork skills needed to coordinate diverse multidisciplinary teams to solve challenges in the biological world. (SLOs 2-4)

General Education Core Curriculum
The Texas Higher Education Coordinating Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

By enrolling in Principles of Ecology and Evolution you are also enrolling in a Core Curriculum Course that fulfills the Teamwork requirement. You will see this course on your D2L list.

At one point during the semester, you will receive an assignment that fulfills both the requirements of this course and the needs of Stephen F. Austin State University's Core Curriculum Assessment Plan with the Texas Higher Education Coordinating Board. When you complete this one assignment, you need to upload the assignment to both your standard course dropbox determined by your Instructor and the “Core Curriculum” dropbox. The Core Curriculum dropbox will be identified by the Objective for which work is being collected. (Examples: Critical Thinking, Teamwork, Social Responsibility Empirical & Quantitative Skills, Personal Responsibility, Communication Skills-Written, Communication Skills-Written & Visual, and Communication Skills- Oral & Visual.) Please note that this only applies to the approved assignment. All other assignments should be submitted according to regular class operations.
When you complete the assignment mentioned above, you will upload the assignment to both the Principles of Ecology and Evolution dropbox and the Teamwork dropbox.

Please note that this only applies to the specific assignment listed in the matrix below. All other assignments should be submitted according to regular class operations.

If you have any questions, please see your instructor, or contact the Office of Student Learning and Institutional Assessment at (936) 468-1130.

The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to the D2L Teamwork dropbox this semester, and the date the assignment(s) should be uploaded to the D2L Teamwork dropbox. Not every assignment will be submitted for core assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in the D2L Teamwork dropbox.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due</th>
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<tbody>
<tr>
<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</td>
<td>TBA</td>
<td>TBA</td>
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**Student Learning Outcomes:**

- SLO 1. Demonstrate understanding of the process of science by distinguishing between science and non-science and designing experiments that address testable hypotheses.
- SLO 2. Use quantitative reasoning to interpret evolutionary and ecological data (tables, figures and graphs).
- SLO 3. Demonstrate understanding of the skills and attitudes necessary for effective teamwork in collaborative learning activities and a semester-long project.
- SLO 4. Critically assess the interrelationship of human dimensions and ecology/evolution and communicate resulting conclusions in oral, visual and written formats.
- SLO 5. Understand evolution as the unifying concept in biology.
- SLO 6. Understand the factors that govern interactions between organisms and their environments.

**Grading Policy:**

Your final grade in this course is determined by grades from the laboratory, lecture exams, quizzes and participation.

- 3 Exams: 60%
- Quizzes: 10%
- In-class work/participation: 5%
- Lab Grade: 25%

Your grade is determined by earning 90%, 80%, 70% and 60% of the available points for the associated traditional letter grade.
Exams: There will be 3 midterm exams. All exams will consist of multiple choice, true-false and matching questions. In the event of a missed exam or to make up a low score, the final exam can replace one midterm exam. **THE FINAL EXAM WILL BE CUMULATIVE.**

Starting Exams On Time: All students must be there to start the exam at the start of the normal time. Students will be required to complete the exam in the allotted time and during the specified window of time.

Quizzes: Quizzes are designed to encourage you to keep up with the material and be ready for in-class activities. There will be no make-up for missed quizzes.

Evaluations and Surveys: It is now departmental policy to require students to fill out online class evaluations at the semester’s end (instructions will be provided at a later date).

Lab Grade: BIO 125 lab comprises 25% of your combined lecture & lab score. Your grade is based solely on weekly activities and assignments.

Course Grade: Combined lecture and lab grades and applied to both BIO 125 & 125L. For example, if you earn an A in lecture, a C in lab, and a B overall, your transcript will record a B for both lecture (125) and lab (125L).

Grading Scale:

- A = 90–100%; B = 80–89%; C = 70–79%; D = 60–69%; < 60% = F

Attendance Policy:

Attendance will be taken based on your completion of assigned tasks and viewing lecture and lab materials provided through the d2l learning platform.

Acceptable Student Behavior:

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1, http://www.sfasu.edu/policies/student_conduct_code.asp). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. **If you are asked to leave, you must schedule a time to meet with me before you are allowed to attend another lab.** Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

Academic Integrity (A-9.1):

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.
Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

Withheld Grades Semester Grades Policy (A-54)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Students with Disabilities

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.
<table>
<thead>
<tr>
<th>Day</th>
<th>Topic</th>
<th>Lab</th>
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| 1      | Introduction/ Critical Skills in Science/ Scientific Inquiry  
(First Day) (July 7) | Lab: No Lab                        |
| 2      | Scientific Method / Intro to Evolution & Evidence  
(July 8) | Lab: EcoBeaker: Understanding Experimental Design |
| 3      | Heredity & Mendelian genetics  
(July 9) | Lab: EcoBeaker: Mendelian Pigs        |
| 4      | Hardy Weinberg Equilibrium  
(July 13) | Lab: TBA                            |
| 5      | **Exam 1**  
(July 14) | Lab: No Lab                        |
| 6      | Microevolution: Natural Selection  
(July 15) | Lab: EvoBeaker: Darwinian Assumptions |
|        | Microevolution: Sexual Selection                                                        |                              |
| 7      | Microevolution: Genetic Drift  
(July 16) | Lab: EvoBeaker: Sickle Cell Alleles   |
|        | Microevolution: Migration & Mutation                                                     |                              |
| 8      | Macroevolution: Species Concepts  
(July 20) | Lab: EvoBeaker: Genetic Drift and Bottlenecked Ferrets                              |
|        | Macroevolution: Speciation                                                               |                              |
| 9      | **Macroevolution: Phylogenies & Phylogeography**  
(July 21) | Lab: Phylogenies                    |
| 10     | **Exam 2**  
(July 22) | Lab: No Lab                        |
| 11     | Climate  
(July 23) |                              |
|        | Biomes                                                                                 |                              |
|        | Lab: No Lab                                                                            |                              |
| 12     | Population Ecology: Distribution & Life History  
(July 27) | Lab: EvoBeaker: Understanding Population Growth Models |
| 13     | **Community Ecology: Species interactions**  
(July 28) | Lab: No Lab                        |
| 14     | Community Ecology: Competition  
(July 29) |                              |
|        | Community Ecology: Biodiversity                                                         |                              |
|        | Lab: EcoBeaker: Keystone Predator                                                       |                              |
| 15     | Succession  
(July 30) | Lab: No Lab                        |
| 16     | **Exam 3**  
(August 3) | Lab: No Lab                        |
| 17     | Ecosystem Ecology: Energy Flow  
(August 4) | Lab: Food Webs                      |
| 18     | Ecosystem Ecology: Nutrient Cycling  
(August 5) | Lab: EcoBeaker: Isle Royale         |
| 19     | Ecosystem Ecology: Climate Change  
(August 6) | Lab: No Lab                        |
| 20     | **Final Exam**  
(August 7) | Lab: No Lab                        |