

BSc 307L Ecology Lab Syllabus
Fall 2012 (Friday 1:00 – 3:50 p.m., 4 – 6:50 p.m.)
Science Building Room #136

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Office Hours: Monday – Thursday: 12:00 to 1:00 P.M. or by appointment

Course Objectives:

This course is designed in conjunction with the lecture portion to acquaint the students with the protocols and techniques used in studies of ecology. Ecology is the study of living things and their interaction with their environment. This class takes a hierarchical look at ecological processes from ecosystems to populations. Specific topics include the flow of energy and matter through global and local ecosystems, factors affecting production and biodiversity, zones of tolerance, ecological succession, ecotones and ecoclines, community ecology, niche theory, population models, and evolutionary arms races.

This course is designed in conjunction with the lecture portion to acquaint the students with the protocols and techniques used in studies of ecology in the topic areas mentioned above. Along with understanding what techniques are used in ecology, the students will also work to better understand scientific writing.

Measurable Student Learning Objects

- Become familiar with the techniques used by ecologists.
- Gain a better understanding of scientific writing with emphasis on ecological works.

Course Material:

The lab manual is found on Dr. Kopachena's webpage and needs to be printed out and brought to the corresponding day; I will not be providing any lab manuals. Extra links are also found on the webpage and some are used for specific labs, so do not forget to download those.

Laboratory Safety:

1. There will be **NO** food or drink allowed in the lab.
2. There will be **NO** open-toed shoes allowed in the lab
3. Turn off cell phones and other electrical devices before entering the lab, make sure they are put away and not accessed while the lab is in progress.
4. Students that are disruptive will be immediately expelled from the lab which could result in a zero on a lab report.
5. Use caution when handling glassware or sharp tools.

6. Since there is in-the-field work be careful where you step and keep an eye out for animals and other objects that could pose harm.
7. At the end of the lab, make sure all materials are returned to the proper places.

Policies and Procedures:

1. Attendance is **MANDATORY** to mainly the data collections lab. If you do not show up for the data collection lab you **WILL NOT** be able to do data analysis and therefore will not be able to turn in a report and receive a **ZERO** for that lab. Exceptions do apply to those who have a valid excuse (defined in the University's Student's Guidebook)
2. **BE ON TIME.** Any student who is 15 minutes or more late to class will not be able to participate in the data collection. There will be a sign in sheet for each data collection lab and it must be signed. If it is not signed, a lab report will not be able to be turned in.
3. The data analysis portion of the lab is not mandatory but I highly recommend coming for it is the best opportunity to ask questions and check your numbers.

Course Grading:

Each lab report is worth 5 points, 6 labs for a total of 30 points. The breakdown of your entire grade for the class can be found on Dr. Kopachena's webpage. Each lab report will be graded based on formatting guidelines that can be found below as well as the webpage along with the content which includes grammar. A sample lab report is available for the students to view and follow for it is the format that will be used on all lab reports. The sample also gives the students an idea of what content needs to be included and how it should be presented. There is a separate rubric that will be handed to the students which lets the students understand how the report will be graded in terms of how points can be taken away.

*All lab reports must be typed using **12 pt Times New Roman font**. Do not use point form and do not use direct quotes. Lab reports should be written in paragraph form in scientific format with the following headings: Abstract, Introduction, Methods, Results, Discussion. Failure to use headings will result in lost points. The Introduction should be a short paragraph describing the purpose of the exercise. It should be about 1/2 page long. The Methods section should describe what procedures were used to obtain and analyze the data and what departures from normal procedure occurred that may cause results to vary. This section is usually no more than 1 page long. The Results section describes the data that were obtained and what important trends occur in that data. Reference should be made to figures and tables of data. The written portion of the results section should usually be no more than 1 page long. All figures and tables should be clearly identified and labeled (e.g. Figure 1, Table 1, etc.). Note that "Graph" is not considered acceptable scientific terminology and will not be accepted in your lab report. Use **only the terms Figure or Table to refer to figures and tables**. Figures and tables should be placed, each on a separate page, at the end of your lab report. All figures and tables must be computer generated. The Discussion section usually provides an explanation for the trends observed in the results section. This section should normally not be more than 1 - 2 pages long.*

Each student must also write their own unique lab report, **plagiarism will not be tolerated and any lab report with plagiarism will receive a zero and will also be handed to Dr. Kopachena.**

Late lab reports will not be accepted unless it falls under the university guidelines and **only** the guidelines set forth in the University's Student's Guidebook.

Obligatory Statements

Disabilities — Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library, Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

Behavior — All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” (See Student's Guide Handbook, Policies and Procedures, Conduct)

Plagiarism — Plagiarism is a criminal activity. You must cite all sources of information. Unreferenced copying of material, whether parts of sentences, whole sentences, paragraphs, or entire articles can result in a score of zero for your assignment and may result in further disciplinary action.

Early Intervention for First Year Students — Early intervention for freshmen is designed to communicate the University's interest in their success and a willingness to participate fully to help students accomplish their academic objectives. The university through faculty advisors and mentors will assist students who may be experiencing difficulty to focus on improvement and course completion. This process will allow students to be knowledgeable about their academic progress early in the semester and will provide faculty and staff with useful data for assisting students and enhancing retention. Grade reports will be mailed by the end of the sixth week of the semester

Tentative Laboratory Schedule

Aug. 31 Lab check in and instruction.

Sept. 7 Lab #1: Energy - black bulb experiments. - Data collection. Rm. 136.

Sept. 14 Lab #1: Energy - black bulb experiments. (IN Room 210) - Data analysis.

Sept. 21 Lab #2: Population Size I – plants - Data collection. (Reports for Lab #1 due).

Sept. 28 Lab #2: Population Size I - plants. (IN Room 210) - Data analysis.

Oct. 5 Lab #3: Community Composition. Data collection. (Lab reports for Lab #2 due).

Oct. 12 Lab #3: Community Composition. (IN Room 210) Data analysis.

Oct. 19 Lab #4: Population Size II - mobile animals. Data collection, Rm. 136. (Lab #3 due).

Oct. 26 Lab #4: Population Size II - mobile animals. (IN Room 210) Data analysis.

Nov. 2 Lab #5: Human life tables and survivorship. Data collection, Rm. 136. (Lab #4 due).

Nov. 9 Lab #5: Human life tables and survivorship. (IN Room 210) Data analysis.

Nov. 16 Lab #6: Population Models. Data collection. (Reports for Lab #5 due).

Nov. 30 Lab #6: Population Models. (Starts in Rm. 136 then moves to Room 210) Data analysis.

(Lab #6 due Dec 7)