

Meeting Time and Location: 2 pm – 4:50 pm; BEP 124

First Day of Class: Tuesday or Wednesday, Aug 25th or 26th (depending on lab section)

Final Exam: Tuesday or Wednesday, Dec 1st or 2nd (depending on lab section)

Instructors:

Marsha Williams

Lecturer, Department of Biology

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Office Hours: M W F 9:00 am to 10: am, or by appointment

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Office Hours: To Be Announced in Lab, or by appointment

Catalog Description: Application of ecological theory with emphasis on field and experimental studies. Co-requisite: BIOL 3336. Prerequisites: BIOL 1306/1106, BIOL 1307/1107.

Course Objectives/Student Learning Outcomes

1. To learn the basic principles of conducting ecological studies. Success will be measured by your grades on class participation, a midterm exam, and two laboratory reports.
2. To develop critical thinking skills and mathematical analysis skills in relation to biology. Progress will be reflected in your participation, test, and laboratory report grades.
3. To improve communication skills in reading and writing scientific papers. This will be evident in your bibliography of your reports.

Required Texts and Materials:

1. There is no lab manual to purchase. We will provide any lab handouts or post them on Canvas prior to lab.
2. A laptop computer is **essential** for completing the labs. If you do not have a laptop computer, please come see your TA or instructor ASAP. Do not try to analyze data using your phone, the screen is not large enough to enter your data and see the analyses easily.
3. We will be using Microsoft Excel in most of our labs; therefore I strongly encourage you to download it if you don't already have a copy on your computer. The university provides free access to Office 365 for students: <https://www.uttyler.edu/offices/information-technology/office365/>

Prepare for success:

1. Read through the lab **before** coming to class! Come to class with questions!
2. Listen to the introductory lecture and take notes (you'll need them when studying for the midterm and final exams). If the introductory lecture doesn't answer your questions, speak up!
3. Participate actively in labs, i.e. be on time, help collect data, do the lab analyses in excel yourself, make your own graphs and tables, look up complementary papers on Google Scholar.
4. Take pride in your work! Write your reports like they were for a job. Always make sure you edit the final version to make sure there is nothing missing, it matches the rubric provided (what we will grade your work against), and there are no typos or common language mistakes.

Evaluation: Students will be evaluated based on the following work (grade % breakdown):

1. Participation (15%). This will include periodic lab assignments and field trip participation. A missed lab is an automatic 5% deduction. Be prepared to stay the full 3 hours of the lab, most of our labs take that long to complete. Do not leave your lab mates to finish and clean up for you. Be on time for class, sometimes we will be outside and we can't wait for you. Actively participate in data collection, data analysis, and classroom discussions. All daily assignments will be submitted on Canvas by the submission deadline. Hard copy assignments will not be accepted. Learn how to use Canvas and arrange to submit your assignments well before the deadline. Canvas has a 24-hour help line.
2. Midterm (15%). One midterm lab exam will be given. It will be in short answer/essay format and will focus on learning outcomes from lab exercises completed prior to the midterm exam.
3. Two Lab Reports (50%). The first lab report is a learning exercise on writing and will be worth 20% of the grade. The first lab report will focus on the Demography lab. I expect you will learn considerably from the first report; thus, the second report is worth 30% of your final grade. The final report will be on our Aquatic Community Ecology lab. Lab reports will be in the form of a scientific paper (Introduction, Materials & Methods, Results, Discussion, & Literature Cited).
4. Final Exam (20%). The final exam will be in short answer/essay format and will focus on learning outcomes throughout the entire semester.
5. We will follow a 10-point scale for grading (I will only round up a 0.5 or above (e.g., 79.5 would round to 80):
90-100% = A 80-89% = B 70-79 = C 60-69% = D 0-59% = F
6. At the end of the semester, the grade earned during the course will be the recorded grade. We cannot 'give' grades. We are professionally and ethically obligated to record the grade that was earned.

Participation: You are required to be on time in the lab every day and to stay the entire time until the instructor lets you go. The instructor will also monitor your participation within your lab group.

Field Trips: Field trips and outdoor activities make up a large portion of this class therefore, attendance and active participation is required. We will make every attempt to return to campus by the end of lab, but driving time (and unforeseen circumstances) may necessitate a later return – students should make appropriate arrangements ahead of time in case we run late. Appropriate field clothing should be worn on field trips. Students should plan to bring water, bug spray, hat, etc. There are inherent risks one assumes when one goes outside, which cannot be controlled by the instructor or the University. Students should be aware that vehicular traffic, poison ivy, ticks, mosquitoes, or biting and stinging insects (bees, wasps, etc.) among others, are all PERSONAL safety issues. Please contact your TA and instructor privately at the START of the course to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, or if you have emergency medical information to share.

Lateness/Leaving Early/Absence: You are required to be at lab on time every class period and to stay the entire class period. Failure to do so may result in a loss of points up to and including all the day's participation points and all of the points on assignments that were handed in that day. Absences will be excused with appropriate documentation. One missed lab grade will be dropped from the final participation grade -- make sure you use your one 'drop' grade (lab) judiciously!

Lab Reports: The format of the lab reports will be explained in lab and a rubric will be provided. Please follow the lab report rubric format carefully. The goal is to write a formal scientific paper where you state your hypothesis, provide adequate introduction and background information, explain your methods, concisely present your results, and discuss your findings as they relate to the hypothesis and the scientific literature. Just like the lab assignments, each person is expected to write a unique lab report. You are allowed to work together on data analysis, but each person must describe the data, the lab experiment, and their conclusions on their own (including finding your own supporting literature on Google Scholar). People who hand in identical or nearly identical lab reports will receive a 0 for the assignment as plagiarism is not tolerated. Failure to follow the guidelines for working in groups may result in significant point deductions.

Academic Integrity: Students should be aware that absolute academic integrity is expected of every student, in all courses taken at The University of Texas at Tyler. Failure to comply can result in strong university-imposed penalties. For instance, submitting plagiarized work to meet academic requirements including the representation of another's work or ideas as one's own; the unacknowledged word-for-word research results shall be grounds for charges of academic misconduct. **Any cheating or other types of academic misconduct will be reported to the university administration and at minimum will result in an automatic failure of the course.** Do not copy graphs or tables from other groups, texts, or other sources. Create your own figures. Do not cut and paste anything from the internet! Any contribution from another individual must be credited appropriately in the text.

Exams

- **Taken individually**, without input or assistance from anyone else, including students that have taken the exam, quiz, or course previously.
- The use of notes, texts, or any other reference material is **Prohibited**. All backpacks, phones, and hats must be placed at the front of the room before the exam begins.
- Possession of anything containing course content will be considered cheating, whether you refer to them or not during the exam
- **Talking** during an exam to anyone other than the instructor or proctor will automatically be considered cheating. It does not matter what you were talking about.
- Any use of a cell phone or any other electronic device that could be used to record or transmit test material is **Prohibited**. Phones must be out of sight and silenced during the exam. Smart watches should be put away.

Lab Reports or Writing Assignments

- Students may **not** plagiarize any part of the lab report, it must be written individually.
- Methods may be similar in content because the same labs will be conducted by all students; however, they may not be identical.
- Results may have similar data across the class; however, you should prepare your own tables and figures and create your own titles. You will also search for and cite your own supporting literature sources in the text.
- You will submit this to a plagiarism checker via Canvas, which will check for all forms of plagiarism (including the use of AI). Your similarity report should be **less than 40%**, if it is not, you may be flagged for plagiarism.
- All submissions should be in a Microsoft Word document.

Weekly Lab schedule (subject to change due to weather):

Aug 25 or 26	Syllabus/Hubbard Brook Environment Lab
Sep 1 or 2	Phenology Lab
Sep 8 or 9	Population Variation Lab
Sep 15 or 16	Population Genetics (Hardy Weinberg) Lab
Sep 22 or 23	Human Demography Lab (off campus): Introduce Lab Report 1
Sep 29 or 30	Sexual Selection Lab
Oct 6 or 7	Lab report 1 due, Midterm Exam
Oct 13 or 14	Predation Lab
Oct 20 or 21	Competition Lab
Oct 27 or 28	Landscape Ecology Lab
Nov 2 or 4	Aquatic Community Ecology Lab (Quail Creek off campus)
Nov 10 or 11	Community Ecology Lab IDs, Data Analysis, Introduce Lab Report 2
Nov 17 or 18	Open Lab – TA available for help with lab report data analysis or writing
Nov 24 or 25	Thanksgiving Break (No Class)
Dec 1 or 2	Lab report 2 due, Final Exam
Finals Week	No Lab

What is plagiarism and how can it be avoided?

Plagiarism may be defined as (1) presenting work, ideas, or phrasing of another, in whole or part, as one's own without giving credit and proper documentation of sources; (2) copying material directly from sources (including electronic media) except when the material is enclosed in quotation marks and the source is clearly identified; (3) paraphrasing too closely to the original, even when the source is identified; and (4) claiming credit for work in any media (electronic, digital, artistic, etc.) where the student is not the original creator of said work. Work that is plagiarized will receive an automatic grade of "F". If you are unsure about this subject, please take the time to talk to your TA or instructor or visit the writing center on UT Tyler's campus (<https://www.uttyler.edu/academics/success-services/writing-center/>). You will also be required to turn in all written assignments (lab report assignments) in a Word document on Canvas which will use software to assess your paper for Plagiarism (this includes looking at submitted work from previous semester students).

Use of an AI Generator such as ChatGPT, iA Writer, MidJourney, DALL-E, etc. is **discouraged** unless otherwise noted by the instructor. The information derived from these tools is based on previously published materials. Therefore, using these tools without proper citation constitutes plagiarism.

Additionally, be aware that the information derived from these tools is often inaccurate or incomplete. **It is imperative that all work submitted should be your own.** Any assignment that is found to have been plagiarized or to have used unauthorized AI tools may receive a zero and/or be reported for academic misconduct. If you use AI in your research or for spell checking, you must cite its use and document the date and search criteria submitted to AI.

Corrupted File Policy: Any student that turns in a corrupted file will be given 24 hours to turn in a file that can be opened successfully by the instructor. Failure to do so will earn a grade of "0" (Zero) for the paper.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>