

University of Dallas
Department of Biology

Fall 2023 Syllabus

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Required Lab Manual: Enger, E. and Smith, B. 2013. Field and Laboratory Activities for Environmental Science. 8th Edition. ISBN: 9780077599829.

Environmental Science Lab

In this course, you will investigate multiple aspects of the environment that range from biodiversity to population dynamics. Through performing data collection, students will engage in the process of science while learning about important environmental parameters. Students will learn the scientific process through individual labs, but also an independent research project conducted over the course of the semester. Students will report their findings both in writing by submitting a scientific report and also through an oral presentation.

Policies

Students Requiring Special Accommodations

If you are in need of academic support because of a documented disability (whether it is psychiatric, learning, mobility, health-related, or sensory), you may be eligible for academic accommodations through disability services for students. Contact the ADA Coordinator at ada@udallas.edu and for more information on obtaining accommodations see:

<https://udallas.edu/offices/student-disability-services/documentation.php>.

Assessments

Required: Safety Quiz (10pts) – you will not get points for how well you have done, but rather will accumulate 5 points once you have passed the safety quiz.

Laboratory Notebook Handouts (25*11 = 275 points)

Each lab will have data collection sheets and questions at the end of the lab. These pages must be torn out of your laboratory manual and turned in one week from the time the lab was completed.

Independent Project (200 pts)

You and a partner will develop an idea to test that is related to environmental science. You will collect data and write a report INDIVIDUALLY and turn it in at the end of the semester via Brightspace. In preparation for turning in this assignment, you will also turn in parts ahead of time and they are:

-Idea Generation and Approval (Due: Sept. 11 th)	10 points
-Introduction Section with references (Due: Sept. 25 th)	30 points
-Data Collection & Graphs (Due: Oct. 16 th)	30 points
-Methods & Results Section (Due: Oct. 30 th)	30 points
-Final Report due to Brightspace (Due: Nov. 13 th)	50 points
-Final Presentation of Project	50 points

The final report will be a collection of all of the parts. This report will consist of five sections:

Introduction, Methods, Results, Discussion, Literature Cited (Bibliography) I have a video that reviews all the parts of a scientific report that you can view here:

<https://www.loom.com/share/b263af2308d44a55966e5edde06d5eea?sid=96c642a0-89b5-427f-a500-5118bf236b6f>

And, a description of each section and rubric is written out in this document here:

<https://docs.google.com/document/d/1JhufEqb2VIDrz6mW1l2OToZK64JRzU7CxG3FdryDXzQ/edit?usp=sharing>

The final presentation will be completed in pairs. For the presentation, you will create a power point that includes slides organized in the same structure as your paper: Introduction, Methods, Results, and Discussion. You will be graded based on both the structure and clarity of your presentation as well as your presentation style. For more instructions and a rubric see:

https://docs.google.com/document/d/1C-9z8l_DHp4WOm_IvBRprMnXSZchH_eL/edit?usp=sharing&ouid=111252069574451694113&rtpof=true&sd=true

Grading Scale

98 – 100	A+	77 – 79.9	C+
93 – 97.9	A	73 – 76.9	C
90 – 92.9	A-	70 – 72.9	C-
87 – 89.9	B+	67 – 69.9	D+
83 – 86.9	B	63 – 66.9	D
80 – 82.9	B-	60 – 62.9	D-
	<60		F

Attendance Policy

Because this is a laboratory course, students MUST attend all classes. Any absence will result in loss of points for that week because once the class has collected data for that lab we will not go back and repeat it. After three absences you will receive an “F” for the course.

General Rules and Expectations for the Course

1. Students are required to read the labs each week prior to coming to class. This will assist in making the lab run more efficiently.
2. Assignments will be completed by the specified deadlines. The instructor is under no obligation to accept unexcused late assignments and can assign a score of zero points. Missed labs will ALWAYS result in a zero, regardless of the reason for the absence. **Labs CANNOT be made up.**
3. Students will conduct themselves in a courteous and responsible manner in class and keep scholastic integrity (see Academic Honesty).
4. Students have one week to challenge the grade given to an assignment, presentation, exam, or quiz. After one week, the grade is final.
5. Students are expected to check their University E-mail accounts and Brightspace on a regular basis for additional messages related to the course. Please use University E-mail accounts when communicating with the instructor electronically.
6. Students who are performing unsatisfactorily in the course are expected to discuss their performance with the instructor. The instructor is available by appointment outside of class to review course material and discuss strategies to improve performance.
7. The course schedule is subject to change. Deletions, substitutions, alterations in the syllabus schedule may occur.

***Withdrawing from the Course**

A student who is unable to complete a course may withdraw and receive a grade of "W" through the tenth week of the semester. Students should consult with their instructor and advisor before withdrawing from a course.

Academic Honesty

Students are expected to maintain academic honesty through avoiding plagiarism (including writing via AI technology) and cheating. See the University of Dallas' policy on Academic Honesty at:

http://www.udallas.edu/about/university-policies/academic_policies/academic-honesty.php

Change of Grade

The only reason for which a change of grade may be requested is an error in the original recording of the grade. Students are obliged to check their transcripts and consult with their instructors if there is a question of error. The appeal for a change of grade must be made in the first three weeks of the semester following that in which the course was taken. THIS MEANS DO NOT CONTACT ME ASKING FOR A GRADE BUMP.

Tentative Syllabus*

Dates	Lab Activity	Labs Due
Aug. 28 th	Lab 1: Introduction to the course; Library Visit	
Sept. 4 th	No Class - Labor Day	
Sept. 11 th	Lab 2: Primary Productivity, page 1 (In Laboratory) DUE: Project IDEA – Approval During class for idea required	
Sept. 18 th	Lab 3: Habitat and Niche, page 11 (Outside on Campus)	Lab 2
Sept. 25 th	Lab 5: Estimating Population Size, page 26 Set up Lab 7: Population Dynamics Experiment, page 30 (In Laboratory) Collect any necessary supplies for Independent Project	Lab 3
Oct. 2 nd	Lab 4: Community Structure, page 18 (Outside on Campus) DUE: Introduction with Reference – Turn in through Brightspace	Lab 5
Oct. 9 th	No class - Course Release for Independent Project Data Collection	
Oct. 16 th	Lab 6: Historical Changes in Human Population Characteristics, page 38 (Visit Cemetery to gain human demography data)	Lab 4
Oct. 23 rd	Lab 7: Population Dynamics – Collect Data, page 30 (In Laboratory); Lab 8: Human Population Dynamics (computer lab), page 45 DUE: Raw Data and Graphs for Independent Project	Lab 6
Oct. 30 th	MEET IN LAB - Recollect Population Dynamics Data (Lab 7) Lab 10: Evaluating Ecological Footprint Calculations, page 156 (computer lab) Lab 11: Evaluating Renewable Energy Sources, page 105 (computer lab)	Lab 8
Nov. 6 th	Lab 9: Stream Ecology and Assessment, page 68 (In Field – Requires travel to stream - Outdoors) MEET AT LLELA for prairie restoration DUE: Methods and Results Section for Independent Project	Lab 10: Footprint Calculations, page 156 (computer lab) Lab 11: Evaluating Renewable Energy Sources, page 105 (computer lab)

Nov. 13 th	Lab 12: Global Indicators of Climate Change, page 145 (computer lab) DUE: Final Report for Independent Project (NO LATER than Friday, Nov. 17 by 5pm)	Lab 9 write up (NO LATER than Friday, NOV. 17 by 5pm) Lab 7 (DUE MONDAY Nov. 13)
Nov 20 th	No Lab – Thanksgiving Break	
Nov. 27 th	Independent Project Presentation (done in pairs) (Meet back in HSC 102)	Lab 12
Dec. 4 th	No Lab	

*NOTE: Syllabus is subject to change based on weather conditions.