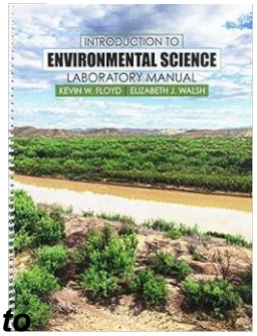
The University of Texas at El Paso
Department Earth, Environmental, Resource Sciences
Syllabus ESCI 1101 Course Information – Fall 2025



ESCI 1101: Environmental Science Lab

Geology Room 222

Instructor: Dr. Adriana E. Pérez **Office Hours:** By appointment

Location: Geology 222 **Email:aperez13@utep.edu**

Required Text: e*ach student is required to have a lab manual:* ***Introduction to Environmental Science*** **– Laboratory Manual. Floyd & Walsh 2022.**

The Lab Manual is available at the UTEP Bookstore.

COURSE OBJECTIVES AND UNIVERSITY LEARNING OUTCOMES:

There are two main purposes for the labs:
1) To show students how different parts of the environment interact, how we measure properties of these features, and detect environmental disturbances such as pollution
2) Teach practical skills for use in the lab and field.

Some labs illustrate observing the environment and collecting samples, while others teach specific skills.

Students are expected to:

1) ***Learn concepts and vocabulary***. Students will explore several important concepts that concern us as citizens, educators, and scientists.
2) ***Learn how scientists think.*** Scientists observe, question, and analyze; you will be expected to do the same.
3) ***Investigate real-world examples***. Students will be investigating soil, water, biota and associated issues from the El Paso area.
4) ***Practice independent thinking*****.** Students will critically evaluate the information they receive regarding environmental issues so they can make informed and independent decisions.
5) ***Enjoy*****.** This should be a class where you learn a lot and also have a good time. Participation is a key to enjoyment.

Process:

Before each class:

* Read the assigned materials.
* Complete the pre-lab quiz (must be turned in at the beginning of class)
* Identify concepts that are central to understanding the environmental issue to be discussed.
* Prepare a list of questions from the reading for which you need further clarification (you usually will get an opportunity to ask those questions in class).

In class:

* Most classes will begin with a quiz over concepts learned in the previous class. These will last about 10 minutes. There is no make-up for missed quizzes (see below).

* Take careful notes.
* Ask questions if you are not sure how to do something.
* Be an active participant!!

Evaluation of work:

There are **a total of 500 points possible for this lab**. There is a form at the end of the syllabus for you to keep track of your grades. We will **post grades on Blackboard** at least once a month.

Quizzes: There will **be quizzes most weeks**. These will usually be split between **a pre-lab quiz** that will be collected at the beginning of the lab and an **in-lab quiz**. The pre-lab quiz will be posted on **Blackboard** and will cover material for the lab that we will conduct that day. The goal of the pre-lab quiz is for you to become familiar with the concepts and activities for that day's lab BEFORE coming to class. That will help you understand what we will be doing and why we will be doing it. The answers are usually found in the PowerPoint lecture slides and the lab instructions.

There will also be **an in-lab quiz** that will cover material **from the previous week's lab**. This part of the quiz will be given promptly at the beginning of the lab, and it will not be given to latecomers. Each **quiz is worth 10 points** (usually split 5 points for the pre-lab and 5 points for the in-lab), and there will be **10 quizzes during the semester**. The **last two pre-lab quizzes** (numbers 11a and 12a) will be **extra credit.**

Lab assignments: All labs will have questions associated with them. You are allowed to complete lab *activities* in groups and **can *discuss* the answers** to the questions in groups, but you must **write your own answers** to the questions unless otherwise instructed. **Each lab assignment** is worth **20 points**, and there will be a total of **12 lab assignments during** the **semester,** plus a final lab assignment for extra credit (number 13).

Energy white paper: We are going to do a mock El Paso Electric company hearing about potential energy sources for generating electricity to meet El Paso's future needs. Each group will be assigned a different energy source (solar, wind, natural gas, coal, or nuclear). During the lab week of **Sep. 22,** each group will make a short presentation about why their source is the best option, followed by a discussion about the strengths and weaknesses of each energy source. To prepare, each group will complete a short (2–3 page) white paper about their energy source. More details will be provided early in the semester. The white paper is worth **15 points**, and the presentations and discussion will be graded as the lab assignment for that week (worth **10 points**).

UTEP Green Fund proposal and peer review: The project for the lab is a simplified version of a proposal to the UTEP Green Fund. The Green Fund is a $3 per student per semester fee that yields up to $40,000 per year for campus sustainability projects (https://www.utep.edu/student-affairs/greenfund/). This semester you and a partner will 1) perform an assessment of the campus ecological footprint, 2) present your ideas of how to use green funds to improve the sustainability of some aspects of the campus footprint, and 3) write a 2–3-page proposal of your ideas (both a rough draft for peer review and a final draft). Details will be provided in the lab. You are required to go to the **writing center** at the library before turning in the proposal. The first draft will be due the week of **Sep 29th,** the peer reviews will be due the week of **Oct 13**, and the final draft will be due the week of **Oct 27th**. The peer review of the written proposals is worth **20 points**, and the final proposal is worth **50 points**.

Worm food: Each student will need to bring in food waste suitable for worm composting one

time during the semester. Details will be provided in the first week of the semester, but suitable foods are generally vegetables and fruits, except citrus. No meat, bread, or other animal products. Bringing in the worm food on time and with only the correct food is worth **5 points**.

Final exam: The lab final exam is comprehensive and will come from the quizzes and lab assignments, typically about 3–5 questions per lab. **Save your work** as it is returned to you; you will need it to study with. The final exam is worth **60 points** and will be given the final week of class (the week before finals).

Extra credit: There will be several opportunities for extra credit throughout the semester. There will be a variety of different activities that you may attend, such as meetings of environmental organizations, workdays at local parks, and seminars on campus. We will post details on Blackboard as we learn about the events. You can only attend approved events for extra credit, but we encourage you to let your TA know about possible events.

For each event, you must submit a written description of three new things you learned about the environment/environmental science. You may submit **two** extra credit write-ups, and you can earn up to **10 points** on each. To earn the full number of points, you must **explain** what you learned, not just list three facts. The write-ups must be turned in **within two weeks of the event**.

Missed Assignments and Late Work: There will be no makeup on any of the assignments without a university or doctor's excuse, quizzes, or the Green Fund Proposal. Late work is not accepted and will count as 0.

Grading:

There are no exceptions to the grading scale presented below.

A = 450 – 500 points (100 – 90%)
B = 400 – 449 points (90 – 80%)
C = 350 – 399 points (80 – 70%)
D = 300 – 349 points (70% - 60%)
F = ≤ 299 points (below 60%)

COURSE POLICIES:

POLICY ON CLASS PARTICIPATION: You are expected to **come to class** prepared to **answer questions** about the assigned lab. Always bring a pen and paper. **Pop quizzes** may be given at any time during the lab period. The instructor will post grades electronically, but **students are responsible for always knowing their grades**.

POLICY ON CELL PHONES: Do NOT have them on or out in class…. This includes texting! **Cell phones can be confiscated** for the class period if used in the lab.

POLICY ON ALL OTHER ELECTRONIC DEVICES: You cannot surf the internet, watch movies, listen to music, etc. in the lab. You will be asked to leave if this happens.

POLICY ON MAKE-UP QUIZZES AND EXAMINATIONS: NO make-up quizzes or exams will be given for reasons **except illness (doctor's note required) or when a student is on official University business (documentation required).** Make-ups **must be scheduled** within a week of when the quiz or test is given.

POLICY ON CAMPUS CARRY: Persons holding a Concealed Handgun License can lawfully carry their handgun into a UTEP classroom as long as the gun remains concealed. Open carry remains prohibited on campus. In other words, none of us should see (or be able to tell that there is) a gun at UTEP. Call the University Police at 747-5611 or dial 911 if you see any individual on

campus with a handgun or other type of weapon. For more information on campus carry, see https://www.utep.edu/campuscarry/; for more information on overall campus safety, see https://www.utep.edu/emergency/. However, the laboratory is a designated Exclusion Area, and no concealed handguns are permitted.

POLICY ON ACADEMIC INTEGRITY: Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes but is not limited to **cheating, plagiarism, and collusion**. **Cheating** may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. **Plagiarism** occurs when someone intentionally or knowingly represents the words or ideas of other people as one's own. **Collusion** involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will **not be tolerated**.

While you will be working in lab teams, the work you submit for assessment must be evaluated on its own merit. Therefore, team members' **reports and work should reflect the individual's thoughts**. Do NOT turn in 3 near-duplicate reports with different names or **everyone involved will be sent to the Dean of Students** for possible **disciplinary action**. Students may be **suspended or expelled from UTEP for such actions**. Yes, we have had to deal with this problem in the past and we are not lenient. You can calculate the consequences. All university guidelines will be strictly followed. Please read these guidelines carefully. The guidelines can be found online at: https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html

GUIDANCE ON ARTIFICIAL INTELLIGENCE (AI): No use of AI (ChatGPT, MightyGPT, etc) allowed in the course.

POLICY ON DISRUPTIVE BEHAVIOR: Any student who disrupts the class will be asked to leave and will be referred to the Dean of Students.

DISABILITY STATEMENT: If you have a disability and need classroom accommodations, please get in touch with The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. *CASS Staff are the only individuals who can validate and, if need be, authorize accommodations for students with disabilities.*

MILITARY STATEMENT: If you are a military student with the potential of being called into military service and/or training during the course of the semester you are encouraged to contact the instructor regarding these matters. You must let us know during the first two weeks of the semester.

DROP POLICY (College of Science): All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. Although UTEP will allow a maximum of one year to complete this contract, the College of Science requests it be limited to a month based upon completion data. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g., multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted. The drop deadline is **October 31, 2025**.

TENTATIVE LAB CALENDAR

Week of:	Lab	Topic	Pre-lab quiz	Pre-lab quiz topic	In-lab quiz	In-lab quiz topic	Assign	Assignment topic
Sep 1	1	Intro/Ecological footprint/Worm composting/Safety	-	-	-	-	1	Ecological footprint
Sep 8	2	Campus ecological footprint	1a	Campus ecological footprint	1b	Ecological footprint	2	Campus ecological footprint
Sep 15	3	Vehicles & Climate Change	2a	Vehicles & Climate Change	2b	Campus ecological footprint	3	Vehicles & Climate Change
Sep 22	4	Energy Debate	3a	Energy Alternatives	3b	Vehicles & climate change	4	Energy Alternatives
Sep 29	5	Population Doubling Up	4a	Population growth	4b	Energy Debate	5	Population growth
Oct 6	6	Set up algae biofuel growth experiment	5a	Population growth and nutrients	5b	Pop growth	-	Population growth & nutrients
Oct 13	7	Algae biofuel population growth & nutrients	6a	Population growth & nutrients	6b	Nutrients	6	Algae biofuel growth results
Oct 20	8	Google Earth & GIS	7a	Google Earth & GIS	7b	Aquatic Diversity	7	Google Earth & GIS
Oct 27	9	Introduction to water chemistry, field trip prep	8a	Water Chemistry	8b	Google Earth & GIS	8	Water Chemistry
Nov 3	10	**Field trip to Ascarate Lake**	-	Water Sampling	-	-	9	Water Sampling
Oct 31	**Drop deadline**							
Nov. 10	11	Aquatic Biodiversity	9a	Aquatic Diversity	9b	Water chemistry	10	Aquatic Diversity
Nov. 17	12	Soils, Worm composting and plants	10a 11a	Worm composting & plants	10b 11b	Aquatic Diversity. Soils	11 12	Soil. Worms and plants
Nov. 24	**Thanksgiving Break**							
Dec 1	14	**Field trip to desalination plant**	12a	Water Resources	-	Worm compost & plants	-	Water Resources
Dec 8	15	**Lab Final**	**Comprehensive – based on quizzes**					

GRADE TRACKING FORM

	Points possible	Points earned
Quiz 1a	5	
Quiz 1b	5	
Quiz 2a	5	
Quiz 2b	5	
Quiz 3a, b	10	
Quiz 4a	5	
Quiz 4b	5	
Quiz 5a	5	
Quiz 5b	5	
Quiz 6a	5	
Quiz 6b	5	
Quiz 7a	5	
Quiz 7b	5	
Quiz 8a	5	
Quiz 8b	5	
Quiz 9a	5	
Quiz 9b	5	
Quiz 10a	5	
Quiz 10b	5	
Quiz 11a*	5	
subtotal	**100**	

Assignments denoted with * are extra credit.

	Points possible	Points earned
Energy white paper	15	
Presentation	10	

Grade	Points required
A	**450 - 500**
B	**400 - 449**
C	**350 - 399**
D	**300 - 349**
F	**≤ 299**

	Points possible	Points earned
Lab assignment 1	20	
Lab assignment 2	20	
Lab assignment 3	20	
Lab assignment 4	20	
Lab assignment 5	20	
Lab assignment 6	20	
Lab assignment 7	20	
Lab assignment 8	20	
Lab assignment 9	20	
Lab assignment 10	20	
Lab assignment 11	20	
Lab assignment 12	20	
Lab assignment 13	20	
subtotal	**240**	

	Points possible	Points earned
Worm food	5	

	Points possible	Points earned
Green Fund proposal: First draft	10	
Green Fund proposal: Peer review	10	
Green Fund proposal: Final Draft	50	

	Points possible	Points earned
Lab final	60	

*Extra credit 1**	10	
*Extra credit 2**	10	

Total points	**500**	