ESCI 1101 Course Information – Fall 2016

ESCI 1101: Environmental Science Lab
CRN #, section: 11207/12581
Biology Room B326

Instructor:

Office Hours:
Location: BIOL 326

Email:

Required Text:

None. Labs will **be posted on Blackboard** by Thursday of the week before the lab, and it is the **student's responsibility to print** out a copy, **read it**, and bring it to lab.

Course objectives:

There are two main purposes to 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 are of concern to us as citizens, educators, and scientists.
2) ***Learn how scientists think.*** Scientists observe, question, and analyze, and 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 are no make ups 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 will usually be 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 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 the week of 24 October 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 **25 points**, and the presentations and discussion will be graded as the lab assignment for that week (worth 20 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 raises up to $40,000 per year for campus sustainability projects (http://sa.utep.edu/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 aspect 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 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 26 September, the peer reviews will be due the week of 10 October, and the final draft will be due the week of 7 November. 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 the first week of the semester, but suitable foods are generally vegetables and fruits, except citrus. No meats, breads, or other animal products. Bringing in the worm food on time and with only 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, work days at local parks, and seminars on campus. We will post details as we learn about the events on Blackboard. 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 amount 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 makeups on any of the assignments, quizzes, or the Green Fund Proposal. Late work is not accepted and will count as a 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 knowing their grades at all times**.

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 lab.

POLICY ON ALL OTHER ELECTRONIC DEVICES: You cannot surf the internet, watch movies, listen to music, etc. in 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 was 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 http://sa.utep.edu/campuscarry/; for more information on overall campus safety, see http://admin.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 another person's as ones' 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 on line at:
http://admin.utep.edu/Default.aspx?PageContentID=2084&tabid=30292

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 a **student has or suspects** she/he has a disability and needs an **accommodation**, he/she should contact the Disabled Student Services Office (DSSO) at **747-5148 or at <dss@utep.edu>** or go to **Room 106 Union East Building**. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions. Please let us know during the first two weeks of the semester.

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 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 **28 October 2016**.

Tentative Lab Calendar

Week of:	Lab	Topic	Pre-lab quiz	Pre-lab quiz topic	In-lab quiz	In-lab quiz topic	Assign	Assignment topic
22-Aug	1	Intro/Safety/Ecological footprint/Worm composting						
29-Aug	2	Campus ecological footprint	1a	Campus ecological footprint	1b	Ecological Footprint	1	Ecological Footprint
5-Sep	3	Introduction to water chemistry, field trip prep	2a	Water chemistry	2b	Campus ecological footprint	2	Campus ecological footprint
12-Sep	4	**Field trip to the river**	3	River field trip take home			3	Water chemistry
19-Sep	5	Aquatic organisms	4a	Aquatic organisms	4b	River field trip	4	River field trip
26-Sep	6	World in the Balance and Doubling up	5a	Doubling up	5b	Aquatic organisms	5	Aquatic organisms
3-Oct	7	Set up algae biofuel growth experiment	6a	Algae biofuel growth experiment	6b	Doubling up	6	World in the Balance and Doubling up
10-Oct	8	Algae biofuel population growth and measuring nutrients	7a	Population growth and nutrients	7b	Algae biofuel growth set up	7	Algae biofuel growth experiment set up
17-Oct	9	Vehicles and climate change	8a	Vehicles and climate change	8b	Algae biofuel calcs	8	Algae biofuel growth experiment results and conclusions
24-Oct	10	Energy development scenarios	9a	Energy	9b	Vehicles and climate change	9 and 10	Vehicles and climate change, Energy presentations
28-Oct		**Drop deadline**						
31-Oct	11	**Field trip to desalination plant**	10	Desalination plant field trip take home				
7-Nov	12	Worm composting and plants	11a*	Worm composting and plants			11	Desalination plant
14-Nov	13	Soils	12a*	Soils			12	Worm composting and plants
21-Nov		**No labs - Thanksgiving**						
28-Nov	14	Lab final					13*	Soils
5-Dec		**No lab - Finals week**						

Grade tracking form

	Points possible	Points earned
Quiz 1a	5	
Quiz 1b	5	
Quiz 2a	5	
Quiz 2b	5	
Quiz 3	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 10	10	
Quiz 11a*	5	
Quiz 12a*	5	
subtotal	**100**	

Assignments denoted with * are extra credit

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
Energy white paper	25	
Green Fund proposal: Peer review	20	
Green Fund proposal: Final Draft	50	

	Points possible	Points earned
Lab final	60	

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

Total points	**500**	