Course Description

Why study environmental geology? The Earth is fundamental to life as we know it today. How we got here, the mountain, oceans, organisms, and our interaction with one another is the focus of this course. In addition, for many there is a natural curiosity about how Earth processes work and how humans may or may not be responsible for changing those processes in ways that will alter our lives forever.

Environmental science lab is to give you hands-on activities of the material covered in the lecture. This lab will reinforce the concepts in environmental science and how it affects your everyday life. Some labs will illustrate scientific observations of our own environment while others, will be experiments and using scientific techniques.

Catalog Description: Introduction to Environmental Science Laboratory (1-0) An introduction to environmental science, emphasizing the multi-disciplinary approach required to document, understand and solve environmental problems. Topics include such large scale challenges as global warming, deforestation, and energy consumption, as well as more local problems such as water and air quality, organic and inorganic toxins, and human health. Material of regional and current interest is incorporated.
Course Objectives

- The student will learn concepts and vocabulary related to environmental science by completing the various labs. Students will explore several important concepts that are of concern to us as citizens, educators, and scientists. They will do this by completing lesson and lab activities which may include collecting visual data photographs.
- The student will properly apply the scientific method to research a problem and formulate conclusions. All sciences share a common methodology of attaining knowledge that seeks to eliminate bias and prejudice in research. You will learn the difference between a hypothesis and a scientific theory.
- The student will synthesize information from external sources and personal observations and incorporate them into lab activities. Learn how scientists think. Scientists observe, question, and analyze, and you will be expected to do the same.
- The student will investigate real world examples by completing hands-on labs. Students will be investigating soil, biota, and associated issues from the El Paso area.
- The student will practice independent thinking. Students will critically evaluate the information they receive regarding environmental issues so they can make informed and independent decisions.
- The student will communicate and defend their methodology and results using writing, graphical, and electronic forms in both the lessons and labs.
- The student will demonstrate their ability to download and use electronic resources and digital software such as Excel, various browser plugins and animations to support learning.

Course Expectations

This course is a 100% on-line course. On-line learning is different than sitting in a classroom. On-line learning may require a more intensive effort on the part of the student because you will have to gather information on your own as directed by the instructor instead of listening to a lecture. On-line learning does give you the freedom to study when and how you want.

All work is laid out in Learning Modules and should be accessed via the Learning Module link. The Module page includes not only links to each individual module and graded work but also to the module introduction as well as additional instructions related to that particular module. Labs are to be submitted via each Module. You correspond with the instructor and with other students via the Email link. Your e-mail
message will only go to those people you designate. In contrast, postings using the Discussion link are posted so that everyone in the class can read the posting and respond. The Discussion tool will be used for some assignments. Feel free to initiate discussions if you have questions or see something of interest to the class as a whole. I may edit and organize discussion postings as needed. If you have questions, there are several means in which to get an answer: send the instructor a message, or, if you are having technical difficulties, contact the Help Desk.

For those who need additional time to complete their labs, please note that they are available several from the start of the course. Each lab will take approximately 2 hours to complete, so plan your time accordingly. If you miss the due date you will have until the night before the next due date to turn it in. There will, however, be a late penalty applied. The availability for each lab is posted, take note of when they are due and when they will become unavailable.

We will be taking advantage of internet resources and software in this course, so expect to download and install needed software and to use programs such as Google Earth, Excel, your computer imaging processing program (such as Paint or Preview) and take digital photographs. If you aren’t comfortable with your computer please expect the activities to take extra time while you are learning. Don’t hesitate to contact the Help Desk for technical assistance. They are trained in answering those types of questions. The computer labs in the library and UGLC have the latest software and browser plugins.

## Assessment

Grades will be based on the following criteria and will be assigned using the scale:

- **A** = 90-100%
- **B** = 80-89%
- **C** = 70-79%
- **D** = 60-69%
- **F** = < 60%
Procedures

- Class work will be posted and should be accessed under the Learning Modules tab. Each Learning Module will include: an introduction to the topic and labs. Due dates are given on the schedule. **DO NOT MISS DUE DATES. It is important to keep up.**
- You should access each Learning Module as soon as you can and note what needs to be done and plan your work accordingly. If you have any questions, please don’t hesitate to ask.
- You may submit work at any time before the due date and the earlier the better. It is not wise to wait until the last minute because ‘technical difficulties’ are not a valid excuse for missing a deadline.
- If your work is submitted before 5 pm of the due date, I will make every effort to review your work and let you know if you need to revise it before it is officially graded. I will leave a comments as to what you are missing or have answered incorrectly. Revised work turned in after the due date will not be graded.
- There is a due date and an availability date. The availability date is how long after the due date the work can still be turned in (with late penalty). This time period is up until midnight before the next lab is due.
- I will typically visit the electronic classroom daily and will try to acknowledge all e-mails within 2-4 hours during the workweek until 5pm. I am usually working online and I will get back to you right away. Questions and messages posted after 5 pm or over the weekend may not be acknowledged until the following day.
- Extra credit, if/when offered, is offered to the entire class, not to individuals and only if turned in by the due date.
- For technical difficulties please contact the Help Desk. I may also be able to help you trouble-shoot.
- Do **NOT** submit work anywhere but the Lab Dropbox. If the Dropbox is not accepting your upload, email me and let me know to reset the folder. I may also ask you to contact the Help Desk for further assistance.
- **NO** work will be accepted after the last day of class. The last day of class is the last day of instruction, not the last day of finals. **NO** work is accepted during finals.
- I make every attempt to present this class free of errors, but they do happen. If you see an error (due date, quiz question, etc.) please email me and let me know so I can fix it ASAP.

Course Outline

<table>
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<tr>
<th>Module</th>
<th>Lab Description</th>
<th>Due</th>
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<tbody>
<tr>
<td><strong>Learning Module 1</strong></td>
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<tr>
<td>Introduction to Blackboard and the Scientific Method</td>
<td>Lab 1: Introduction to Blackboard</td>
<td>Lab 1 due: Sept. 4</td>
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<td>Lab 2: Scientific Method</td>
<td>Lab 2 due: Sept. 11</td>
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<tr>
<td><strong>Learning Module 2</strong></td>
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<tr>
<td>Air Quality</td>
<td>Lab 3: Air Quality</td>
<td>Lab 3 due: Sept. 18</td>
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<td></td>
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<td>Lab 4 due: Sept. 25</td>
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Learning Module 3  
Climate
| Lab 5: Greenhouse Gases | Lab 5 due: Oct. 2 |
| Lab 6: Carbon Lab | Lab 6 due: Oct. 9 |

Learning Module 4  
Ecosystems
| Lab 7: Ecosystems | Lab 7 due: Oct. 16 |
| Lab 8: Population Biology | Lab 8 due: Oct. 23 |
| Lab 9: Biomes | Lab 9 due: Oct. 30 |

Learning Module 5  
Pollution
| Lab 10: Soils | Lab 10 due: Nov. 6 |
| Lab 11: Water Pollution | Lab 11 due: Nov. 13 |

Learning Module 6  
Resources
| Lab 12: Resources | Lab 12 due: Nov. 20 |

Class Project  
Nov. 27

Assessment and Grading Criteria

Labs: 90%
Each lab will have an accompanying activity. These activities are intended to provide examples of the concepts covered in the lecture and how scientists work.

- The labs will be linked to from within each Learning Module.
- The assignments are to be submitted via the same link.
- You will be provided with an Answer Sheet. Download it to your computer, fill in the answers, do a "Save As..." and upload it for grading. I especially appreciate it if your answers are in a different color than the text. It helps me when grading.
- The labs are to be submitted via the Lab link for each Learning Module.
- A comment box is available in the Lab dropbox where you may post any comments you want me to read concerning your work. If you have questions about the lab, ask via the Bb Email so I can read them before grading. I, too, will use the comment box to post any comments I may have on your work as I was grading it. Please return to read the comments, especially if you do not receive a grade for a lab within a few days of the due date.
- If you upload your work early (by 5 pm of the due date) I will look it over and notify you if you have any errors/mistakes. I will leave you comments on what you need to fix. You will have until the due date/time to revise and resubmit your work.
- I prefer your work to be answered using your own words, not copied verbatim from the text, the internet, or a fellow student. Copying answers, especially if not referenced, is plagiarism.
- Labs will be graded on a 10 point scale. The grade will be based both on content and on completeness of the response (see below).

| 9-10: | The lab is complete and correct. It shows insight and careful reflection on the topic. It is well written with complete sentences that respond to the questions. |
| 8-9: | The lab is essentially complete. The learner shows understanding of the topic although there are minor errors they are not conceptual in nature. |
| 7-8: | The lab is missing one or two answers or there are complete or there are errors in the work that reflect a misconception or lack of understanding. |
| 6-7: | The lab is lacking more than one answer. Work is poorly done or displayed and does not demonstrate understanding of topics. |
| < 6: | Does not effectively address the lab, major portions are missing. |

- Labs are due at midnight (Mountain Time). Labs posted after the deadline will lose 1 point.
- Lab can be turned in late up until the availability date, which is midnight the night before the next lab is due.
Class Project: 10%

You are to either participate in an environmental activity outside of class and write up a summary (photos, too) to post online. Participation may include one of the following:

- Volunteer in a local environmental group.
- Participate in a local environmental activity.
- Attend a talk about an environmental issue.
- Take a field trip.
- Come up with an idea of your own (needs instructor approval).

Or you can submit 4 written summaries (200 word minimum, each) of a current event that is related to this class (i.e., environmental in nature). The summary should include:

- why you picked out the article
- the title of the event
- the who, what, when, where and why
- the location of the article/video/news report (reference)

UTEP Policies for Students

Informed Consent: Some individuals may choose to disclose personal information during class. Therefore, it is important that all classmates agree not to discuss or write about what others have discussed in class.

Disability Statement: Services for students with disabilities are provided through the Academic Support Center’s Disability Services Office. Some examples of the assistance provided are: audio materials for the blind or dyslexic, note takers, readers, campus guides, audio recorders, a quiet testing area, and undergraduate academic tutors. In order to qualify for these services, documentation must be provided by qualified professionals on an annual basis. Disability Services forms are available in the Academic Support Center.

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.

Professionalism: Students are learning professional skills and are expected to engage in classroom discussions, complete reading assignments and turn in assignments in a timely fashion as befitting professional behavior.

Scholarly Writing: Use clear college level writing with correct spelling and grammar for all assignments. If you need help in writing, check with the WNMU Online Writing Center.

Integrated Use of Technology: Because this is an online course, I am making the assumption that you are comfortable utilizing a computer, and navigating various software programs like Microsoft Word, Powerpoint. If you have any questions about computer requirements see the Student Resources in Blackboard.
Need Help?

1. Post a question to the Discussion Board. There is no such thing as a dumb question.
2. Post a question as a Blackboard email to your instructor.
3. Click on the Help button in Blackboard.
4. If the Blackboard system goes down or you have other technical questions, contact the UTEP Help Desk.

Academic Integrity Policy and Procedures: Each student shall observe standards of honesty and integrity in academic work completed at UTEP. Students may be penalized for violations of the Academic Integrity policy. Please refer to the Academic Integrity section in the current UTEP Catalog. (Clearly specify what you consider to be violations of academic honesty.)

Caveats: The schedule and procedures in this course are subject to change in the event of extenuating circumstances.

Code of Civility: In order to promote a positive, professional atmosphere among students, faculty and staff, the following Code of Civility has been developed:

- **Respect**: Treat all students, faculty, staff and property with respect and in a courteous and professional manner. This includes all communications, whether verbal or written. Let your actions reflect pride in yourself, your university, and your profession.
- **Kindness**: A kind word and gentle voice go a long way. Refrain from using profanity, insulting slang remarks, or making disparaging comments. Consider another person’s feelings. Be nice.
- **Truth**: Exhibit honesty and integrity in your dealings with fellow students, faculty and staff members. Don’t lie, don’t cheat, and don’t steal.
- **Responsibility**: Take responsibility for your actions. This includes gracefully accepting the consequences of your behavior.
- **Cooperation**: Exhibit a cooperative manner when dealing with students, faculty and staff so we may all work towards our common goals and mission.
- **Acceptance**: Accept differences in others, as they accept differences in you. This includes diversity in opinions, beliefs and ideas and everything else that makes us unique individuals.
- **Professionalism**: Always conduct yourself in a manner that will bring pride to your profession, to the University of Texas at El Paso, and, most importantly, to yourself.

2017 Vicki Harder