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.

This course is designed to give you a survey of the various topics of environmental science. This course will reinforce the concepts in environmental science and how it affects your everyday life. Some topics will illustrate scientific observations of our own environment while others, will be experiments and using scientific techniques.

Catalog Description: Introduction to Environmental Science (3-0) 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 activities. Students will explore several important concepts that of concern to us as citizens, educators, and scientists. They will do this by completing class activities which may include collecting visual data as 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 sees 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 class 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 a variety of activities. 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 the class.
- 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 face-to-face class with an online component that incorporates active learning. Active learning is different than sitting in a classroom listening to a lecture. Active 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.

Coursework 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. You correspond with the instructor and with other students via the Email link when not in class. 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.

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 Excel, your computer imaging processing program (such as Paint or Preview), take digital photographs, and install web browser plugins as needed. 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 class activities. Due dates are given on the schedule. **DO NOT MISS CLASS. It is important to come every week.**
- 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.
- 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. 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.
- For technical difficulties please contact the Help Desk. I may also be able to help you troubleshoot.
- 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

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<thead>
<tr>
<th>Date</th>
<th>Topic Description</th>
<th>Reading</th>
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<tbody>
<tr>
<td>January 25</td>
<td>Introduction to Environmental Science</td>
<td>Chapters 1, 5</td>
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<tr>
<td>February 1</td>
<td>Environmental Systems</td>
<td>Chapter 2</td>
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<td>February 8</td>
<td>Air Quality</td>
<td>Chapter 13</td>
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<td>February 15</td>
<td>Climate Change</td>
<td>Chapter 14</td>
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<td>February 22</td>
<td>Environmental Health &amp; Toxicology</td>
<td>Chapter 10</td>
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March 1  Exam 1: Chapters 1, 2, 5, 10, 13, 14

March 8  Evolution, Biodiversity, & Population Ecology  Chapters 3, 4, 8

March 15  Human Population  Chapter 6

March 22  Spring Break

March 29  Cesar Chavez Holiday

April 5  Soil, Agriculture, & Future of Food  Chapter 7

April 12  Exam II: Chapters 3, 4, 6, 7, 8

April 19  Good Friday: Class TBD

April 26  Renewable/nonrenewable Energy  Chapters 15, 16

May 3  Managing our Waste  Chapter 17

Final Exam

Assessment and Grading Criteria

Class Activities: 25%
Each class will have an accompanying activity. These activities are intended to provide examples of the concepts covered in the lecture and how scientists work.

Activities 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 activity 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 activity is essentially complete. The learner shows understanding of the topic although there are minor errors they are not conceptual in nature.

7-8: The activity 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 activity 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 activity, major portions are missing.

Activities are due at the end of class unless otherwise noted.

Class Exams: 60%
There will be two class exams, they will be taken in Blackboard.
Final Exam: 15%
A comprehensive final exam will be given.

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.

2019 Vicki Harder