

Introduction to Environmental Science

INTRODUCTION TO ENVIRONMENTAL SCIENCE (CRN 24404 - ESCI 1301 - 2)

Lecture: Mondays 5:00-7:50 PM, UGLC 220

Instructor: Dr. Brenda Barnes - 915-276-6103, email: bebarnes@utep.edu
Office Hours: TBA or by appointment

Text for lecture (required): *Essential Environment: The Science behind the Stories, 4th Edition*, J. Withgott and M. Laposata, Addison Wesley, 2012, ISBN 978-0-321-75290-1

Supplemental lecture material (e.g., copies of power points, knowledge surveys, group assignments, handouts, supplemental readings, links to useful websites) will be available at the class Blackboard site.

Goals for Knowledge – at the end of this course you should:

- know basic vocabulary of environmental science
- understand and apply the principles of the scientific method
- understand the foundations of environmental science including chemistry and physics of matter, energy flow, and biogeochemical cycles
- learn how evolution, biological diversity, ecology and species interactions drive natural ecosystems
- understand how economics, politics and public policy influence human interactions with the natural environment
- understand the environmental challenges that face the U.S. and the world including: global climate change, population growth, consumption of non-renewable energy resources, land use, and degradation of soil, air and water

Goals for Skills – at the end of this class you should:

- be able to make and read basic charts and graphs
- locate key features on maps
- be able to converse with scientists or the general public on basic issues related to the environment
- be able to assess information and issues related to environmental science both in our local community and at a global level

How will I determine if you have reached these goals?

- bi-weekly in-class exams (see schedule)
 - quizzes
 - in-class assignments/activities
 - reading reflections
 - other activities (e.g, trip to a museum, attending a presentation)
- (see grading details that follow)

Course Outline (lectures)

NOTE: This syllabus is an approximation of what we will cover. The dates/assignments may be subject to change. Please check Blackboard for reviews/knowledge surveys of material that will be emphasized on exams. These will usually be posted by Wednesday during the week before the exam. For example, by Feb. 2 I will post the material to study for the exam on Feb. 9.

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Week of:	Topic	Chapters	Exams
Jan. 26	Understanding our environment	1	
Feb. 2	Earth systems and cycles	2	
Feb. 9	Evolution and population ecology	3	Feb. 9
Feb. 16	Community ecology and biomes	4	
Feb. 23	Environmental Economics and Policy	5	Mar. 2
Mar. 2	Human Population	6	
Mar. 9	Spring Break – No Class		Mar. 16
Mar. 16	Agriculture, Food, Soils	7	
Mar. 23	Biodiversity	8	Mar. 30
Mar. 30	Health/Toxicology	10	
Apr. 6	Geologic Hazards and Resources	11	Apr. 13
Apr. 13	Water	12	
Apr. 20	Air	13	Apr. 27
Apr. 27	Climate Change	14	
May 4	Energy (renewable/nonrenewable)	15/16	
May 11	Last exam/make-up exam		May 11 (Mon.) 5-7:50 PM

Other Important Dates:

Jan. 19 – M. L. King Jr. Holiday
 Mar. 9-13 – Spring Break – no classes
 Mar. 30 – mid-term grades emailed to students
 Mar. 31 – Cesar Chavez Holiday – no class
 Apr. 3 – Spring Study Day – no class
 Apr. 6 – last day to drop class with “W”
 May 11 – last day of this class

Grading:

In-class exams 7 in-class, 40 points each)	280 points
Reading reflections (14 x 5 points each)	70 points
In-class activities	150 points
Quizzes (10 x 5 points each)	50 points
<u>Total:</u>	<u>550 points</u>

A= above 494 points
 B= 440-494 points
 C= 385-439 points
 D= 330-384 points
 F=below 330 points

A note on exams:

There will be seven in-class, bi-weekly tests. Exams will be given on the Mondays indicated in the syllabus. The last test will be given during the final exam period (May 11, 2015, 5-7:50 PM) AND there will also be an opportunity to take an extra exam if you missed any exam or want to try and improve your grade (I will throw out your lowest exam grade if you take the extra exam). The tests will include multiple choice, fill-in-the blank, and short answer questions. Some questions will involve the interpretation of diagrams or graphs. I will usually post knowledge surveys on Blackboard before we cover the material in class activities. Then I will update the knowledge survey the Friday before the next exam to help you to prepare for the exam. Just reading the book over and over will not help you to study! Try to organize a study group or come to special group study sessions with the teaching assistant. Please come on time for all

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class activities and exams. *Once the first person hands in their exam no one walking in late will be allowed to take the exam.*

Exam policy: If you miss an exam for any reason you must contact me within 24 hours of the exam. No make-up exams will be given for reasons other than illness (doctor's note needed), absence with instructor's prior approval when a student is on official University business (documentation required) or an extreme emergency (documentation required). Please note that make-up exams are more difficult than a regular exam (e.g., more essay questions, graphs to interpret, etc.). The extra exam given on May 11 is your opportunity to replace any exam you missed due to an unexcused absence.

Attendance: I will not take attendance, but it is very important you come to class since there will be group activities and quizzes that will count towards your grade. Some of the material we cover in class will not be in the book. Questions related to group activities and quizzes are fair game for exams. Note these quizzes/activities are worth 36% of your final grade in the course.

Class participation: I want you to be active and engaged in learning in this class, not just sitting back and taking notes. That is why I will break up lectures into small chunks with group activities interspersed between them. Many studies have found this is the best way to learn and retain material. Also, once you leave the university who is going to give you lectures on what you need to know? This may be different from what you are used to.

In order to get you to read the book before class, you will be required to submit a reading reflection to the class Blackboard site by Monday at 3 PM. Note that these reflections count for 13% of your class grade. This way we can spend more class time exploring how the book material relates to what is going on here in the El Paso region, the nation and the world.

Some of the ways I will encourage your participation in class include: a) think/pair/share activities – I will ask you to turn to someone next to you and discuss an important topic, and will call on various groups to provide their answers at the end of the discussion time, b) voting with color card – each of you will be given a voting card and I will explain how to use them. I expect you to bring them to every class since we will be voting several times each class – voting cards mean you don't have to buy an expensive clicker – it's low tech but works well! If you lose your card you may print out another from the Blackboard site. You must insure the card has the proper colors (use crayons/markers if you don't have access to a color printer), c) group activities – you will be assigned a group to work with all semester and hand in group work at least once a week.

Extra Credit Options: I will have a variety of extra credit options posted on the Blackboard site. These options allow you to find out more about environmental issues, volunteer/participate in local environmental activities, go on field trips, etc. Each completed option is worth 5 points (maximum of 20 points – equivalent to 4% of your grade in the class). In order to avoid a "last minute rush" on turned in extra credit assignments at the end of the semester I have set up the following deadlines:

Extra credit 1 – due no later than Feb. 23, 3 PM

Extra credit 2 – due no later than Mar. 13, 3 PM

Extra credit 3 – due no later than Apr. 6, 3 PM

Extra credit 4 – due no later than Apr. 27, 3 PM

Please note that many people who do not bother to do any of the extra credit often find they are one point short of reaching an "A" or "B" at the end of the semester and wish they had completed an assignment!

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Contacting me: The best way to contact me is directly by email at bebarnes@utep.edu I check my email fairly often. I also check the course messages in the Blackboard site. It is very helpful if you put "ESCI 1301" in the subject line. My phone is 915-276-6103. Please email me and we'll work out a time to meet.

Blackboard: I will use the Blackboard site for a number of purposes. First, I will post copies of the power point slides, knowledge surveys, and in-class assignments at the site. Second, you will need to turn in your reading reflections to the site each week on Monday at 3 PM. Third, I will periodically post extra credit opportunities and material that I think you might be interested in looking at or reading. Fourth, I will use Blackboard to post your exam, quiz, homework, and extra credit scores. I will try my very best to post exam scores by the Monday following an exam.

PLEASE try to access Blackboard as soon as possible. There is work you need to submit on Blackboard by Feb. 2nd!

Academic Honesty: The Geological Sciences Department has gone to great lengths in order to make learning the material easier than engaging in scholastic dishonesty, which is defined in the UTEP Student Handbook and also at <http://sa.utep.edu/osccr/academic-integrity/>. Proven violations of these detailed regulations may result in any of the consequences outlined in the Student Handbook.

Plagiarism: Using another person's ideas, words, drawings, etc. without giving proper credit (through a citation) is considered plagiarism. This includes anything from a book, magazine, technical report or journal, or website. It ALSO includes anything copied from another student's paper or from a paper you wrote for another class where you received credit for it. Plagiarism is considered *Academic Dishonesty* and you may be reported to the Dean of Students if I suspect you of plagiarism. I regularly randomly compare students' papers for similar wording and conduct internet searches on suspicious text. If you plagiarize as a professional it can cost you your job! Please see additional material at the Blackboard site on how to properly cite references. Get help from Technology Support sooner rather than later.

Students with Disabilities: If you have a disability and believe you may need accommodations in my class you are encouraged to contact the Center for Accommodations and Support Services (CASS) at 915-747-5148 or cass@utep.edu within the first two weeks of class. They are located in room 106 of the East Union Building. I will work with you and CASS to find accommodations that will help lead to success in my course. The sooner you have CASS contact me the better able I am to help you.

Phones, Computers and Disruptive Activities: Cellular phones are to be placed in silent mode during class. I encourage you to bring a smart phone, laptop or tablet if you want to take notes on it or view course material or look up information on the internet during group activities. Laptops and smart phones should not be used for other non-class related activities. If you interrupt the class by talking loudly/excessively I will ask you to stop and give you a warning. If this activity happens a second time during the semester I will ask you to leave class for the rest of the day. These activities are distracting to the students around you who would like to give the class their full attention. On the days of exams or quizzes you must put away all cell phones, tablets and laptops prior to the start of the exam/quiz.