Environmental Science I  
ENVR 1401/GEOL 1405  
Spring 2020, 8-Week Term II  
Professor: Paul Patrick Day

Course Syllabus

Instructor Contact Information:
E-mail: paulday@dcccd.edu  Phone: 972-860-1065  
Eastfield College  
3737 Motley Drive  
Mesquite, TX 75150

Course Reference No.: 1257119, 1257133, 1257112, 1257099, and 1257125

Time and Location:  
Lectures: Online via Youtube or as assigned reading  
Lab: Online Via HOL Labs

Office Hours:  
Posted on wall outside C267 and by appointment

Course Description:
Interdisciplinary study of both natural (biology, chemistry, geology) and social (economics, politics, ethics) sciences as they apply to the environment. Focus on current global concerns, including, global warming, overpopulation, deforestation, pollution, biodiversity and resource use. Practical laboratory experience emphasizes the application of fundamental principles of biology, chemistry and geology as well as critical thinking and analysis. (3 units LEC, 3 Lab) Grade Only.

Course Learning Outcomes:
1. Recognize, describe, and quantitatively evaluate earth systems, including the land, water, sea, and atmosphere, and how these function as interconnected ecological systems.
2. Assess environmental challenges facing humans caused by their interaction with the physical and biological environment (e.g., population growth, energy resources, food production, pollution, water and resource use).
3. Acquire a scientific vocabulary and critical thinking skills related to environmental science.
5. Apply the scientific method to environmental investigation.
6. Measure and observe aspects of the environment (e.g., air, water, soil) through sampling and sample analysis.
7. Develop an assessment plan for an environmental case study.
8. Demonstrate the collection, analysis, and reporting of data.

Pre-requisite/Co-requisite: College-level ready in Reading.

Required Course Text and Materials:

Important Note! Due to the current COVID-19 situation, it may be possible to acquire your textbook for free as the college seeks to provide financial relief during these difficult times. To see if you are eligible for a free e-text, check on https://studentresponse.redshelf.com.

A New York Times monthly online subscription may be required for homework assignments. You are free to cancel the subscription once the course has ended.

Hands-On Labs (HOL) lab kit number LP-3075-ES-02 and account access. Look in the “Lab Assignments” section of this syllabus for crucial details about how to acquire these materials and get started.
Course Requirements:
1. Read assigned chapters.
2. Contribute to class discussions (where applicable).
3. Successfully complete all graded assignments (listed below).
4. The instructor reserves the right to make reasonable changes to this syllabus, course schedule, or grading requirements during the course. Students will be notified of changes in writing and/or by announcement in class.

Grading Policy:
The student's grade will be based on the cumulative collection of points received on three lecture exams and homework sets assigned throughout the semester. Assignments will be reviewed after they are given/collected in class, and I will do my best to return graded materials within two weeks. At any time in the semester a student can determine their standing in the class by dividing their current total cumulative score by the current total points available. For example, if a student scored 83 points on the first unit exam, that student's standing in the class would be a B. If a student scored 83 points on the first exam and 79 and 89 points on the second exam and final exam, then their standing in the class would be (83+79+89)/300 = 84% = B. A curve may be employed when issuing final grades.

Grading:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Lecture Section</th>
<th>Lab Section</th>
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<tbody>
<tr>
<td>A</td>
<td>100-89.5%</td>
<td>Lab Assignments (10) 20 points</td>
</tr>
<tr>
<td>B</td>
<td>89.5-79.5%</td>
<td>Total Points 200 points</td>
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<tr>
<td>C</td>
<td>79.5-69.5%</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>69.5-59.5%</td>
<td></td>
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<tr>
<td>F</td>
<td>59.5% and below</td>
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Lecture Exam Policy:
There will be two exams covering all material up to the previous exam. Exams are not cumulative though some of the material may be based on earlier chapters. Each exam will be administered online. The final exam will not be cumulative. It should be noted that questions will be taken from the reading and any lecture materials and will concentrate on vocabulary words, lectures, homework problems, and readings assigned in class. To do well on an exam you should view the course lectures regularly, complete the weekly reading assignments, and know the material and vocabulary beforehand. There will be no make-up assessments permitted except in the event of a documented emergency or unless cleared in advance by the instructor.

The exams will focus on the bold-type vocabulary words from the text book, information from the required reading (even if not covered in detail in lecture), problems similar to ones you've done in homework assignments, and general discussions. Techniques that will aid in preparation for this course will be to take good class notes, use flash cards to learn vocabulary words, and to remain current on the reading and homework.

Homework:
Environmental Science is a course that requires quite a bit of practice to master. While the homework assignments won’t require any advanced math skills, most of the problem sets require some logic and perhaps a little pre-algebra to work through. You will also need to have GoogleEarth installed on your computer (freely available at https://www.google.com/earth/) and reliable access to the internet.

To do these problem sets, we will be using the MasteringEnvironmentalScience website provided by Pearson publishing. That website is located at: www.masteringenvironmentalscience.com. You are required to register as soon as possible on their website in order to get these assignments completed. In order to register you will need the following three things:

1. Valid Email address
2. Course ID (For this lecture class it is MESDAY3906319)
3. Access code (included with book purchase or can be bought on the website)
If you need help or have any trouble registering, contact Pearson directly. Also, if you’d like a tutorial on how to register, one can be found on their youtube channel at the following link: https://youtu.be/BCWgNu-kxI0

Chapter homework sets will be due on assigned dates at 11:59 pm. Late submittals are penalized at 10% per day, so DO NOT WAIT TILL THE LAST MINUTE. Allow yourself 2-5 hours per assignment to do a thorough job. If you have any problems, please see me during office hours or send me an email.

**Lab Assignments:**
An addendum to this Syllabus will be submitted which includes lab material ordering instructions that is in accordance with DCCCD’s COVID-19 response. Please be looking for that addendum soon.

**Extra Credit Policy:**
Extra Credit will not be offered to any one individual as a means of “catching-up” on incomplete work. If offered, it will be designed to help students cushion their grade or provide a slight lift rather than be a primary determiner of course success.

**Institutional Policies and Services:**
Institutional policies relating to this course can be accessed from the following link: www.eastfieldcollege.edu/syllabipolicies

**Class/Lab Schedule**

<table>
<thead>
<tr>
<th>Week#</th>
<th>Class Dates (Week of)</th>
<th>Subjects</th>
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</table>
| 1     | 3/29 - 4/4            | Topics: Science and Sustainability; Physical Earth Systems  
Reading: Chapters 1 and 2 |
| 2     | 4/5 - 4/11            | Topics: Evolution, Populations, and Biodiversity  
Reading: Chapter 3 |
| 3     | 4/12 - 4/18           | Topics: Community Ecology  
Reading: Chapter 4  
**Midterm Assigned (Covers Chapters 1-5)** |
| 4     | 4/19 - 4/25           | Topics: Ecosystem Ecology  
Reading: Chapter 5  
**Midterm and Homework for Chapters 1-5 are Due** |
| 5     | 4/26 - 5/2            | Topics: Human Population  
Reading: Chapters 8 |
| 6     | 5/3 - 5/9             | Topics: Soil and Agriculture  
Reading: Chapters 9  
**Final Exam Assigned (Covering Chapters 8-11)** |
| 7     | 5/10 - 5/16           | Topics: Agriculture and Biotechnology, Biodiversity and Conservation Biology  
Reading: Chapters 10 and 11  
**HOL Lab Exercises are all due at 5:00pm.**  
**Final Exam and Homework for Chapters 8-11 are Due** |
| 8     | 3/8 - 3/14            | Term ends, grades turned in by midnight. (Monday) |