Course Description:
Your life relies on a diversity of natural resources: the food we eat, the clothes we wear, and the materials with which we build houses, cars, and electronics all come from the Earth. As the number of people on the planet grows, more resources are needed to meet just our basic needs and most Americans’ desires are not very basic. “40 acres and a mule” or “a chicken in every pot” are no longer the standards for which we strive. Most of us want a car, a cell phone, and a comfortable place to live in an area that is not too crowded plus lots of good cheap food and clean water. All of these items come at a cost that is more than just money. Understanding how the Earth provides our needs and how our actions and decisions affect our planet is the topic for this semester.

Substance and Exam Dates

<table>
<thead>
<tr>
<th>Unit</th>
<th>Unit Name</th>
<th>Chapter(s)</th>
<th>Days Covered</th>
<th>Quiz/Exam Date (Tentative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>Foundations of Environmental Science</td>
<td>1, 2, 3, 4, 5</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>1a</td>
<td>Science and Sustainability</td>
<td>1</td>
<td>4</td>
<td>1/21 (quiz)</td>
</tr>
<tr>
<td>1b</td>
<td>Earth’s Physical Systems</td>
<td>2</td>
<td>5</td>
<td>1/29 (unit test)</td>
</tr>
<tr>
<td>2a</td>
<td>Evolution, Biodiversity, and Population Ecology</td>
<td>3</td>
<td>6</td>
<td>2/7 (quiz)</td>
</tr>
<tr>
<td>2b</td>
<td>Species Interactions and Community Ecology</td>
<td>4</td>
<td>6</td>
<td>2/19 (quiz)</td>
</tr>
<tr>
<td>2c</td>
<td>Environmental Systems and Ecosystem Ecology</td>
<td>5 (part)</td>
<td>6</td>
<td>3/3-4 (mid-term)</td>
</tr>
<tr>
<td>3/4</td>
<td>Environmental Issues and the Search for Solutions</td>
<td>8,9,10,11</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>Human Population</td>
<td>8</td>
<td>6</td>
<td>4/1 (quiz)</td>
</tr>
<tr>
<td>3b</td>
<td>The Underpinnings of Agriculture</td>
<td>9</td>
<td>6</td>
<td>4/13 (unit test)</td>
</tr>
<tr>
<td>4a</td>
<td>Making Agriculture Sustainable</td>
<td>10</td>
<td>6</td>
<td>4/23 (quiz)</td>
</tr>
<tr>
<td>4b</td>
<td>Biodiversity and Conservation Biology</td>
<td>11</td>
<td>5</td>
<td>5/1 (unit test)</td>
</tr>
<tr>
<td></td>
<td>SEMESTER</td>
<td>SEMESTER</td>
<td></td>
<td>5/5-6 (final)</td>
</tr>
</tbody>
</table>
The content of Biology 1409 includes generalizations and specifics of environmental biology. You are expected to understand and remember the facts presented and to demonstrate an ability to work with those facts. This information will be presented during lecture, in the laboratory and through reading your textbook and other assigned material. This is a course designed for students who are not biology majors or minors!

The class will be conducted at college level and students are expected to work accordingly. Students will be expected to come to class both prepared and on time. The overall success of the program depends mostly on each student meeting their individual responsibilities. Much of this course will be covered in the classroom, but much of it will be covered independently by each student. Allowances should be made for substantial study time.

**Textbook**


**Laboratory**

Since we only have 49 minutes per class per day we will be conducting labs over the course of ideally one but up to 3 days. Due to the unpredictable nature of science labs there may be occasions where you will be asked to remain after class to finish a lab or to clean up a lab, etc. My hopes are that this will be rare. Also, on some rare and unpredictable occasions, lab items may have to sit overnight and have measurements taken first thing in the morning. I will be at school early most mornings and can be easily found in the classroom or nearby. Again, this is a college course and therefore is heavily influenced and weighted by the labs. 100% participation in all labs is both expected and required. For each lab students will be required to analyze data and conduct a concise write-up of background, methods, materials, data collected, and conclusions made from analyzing the data. After a lab is done and questions are answered, we will be reviewing what we learned and the overall lesson learned and purpose of each lab. Toward the end of the year students will be expected to complete full lab write-ups.

**Class Supplies**

All students should maintain an orderly notebook organized as you wish. At a minimum please obtain the following by the first full week of the semester:

- Notebook paper
- Composition notebook for lab notes
- 1 box of nitrile gloves (10 bonus points)
- 1 box of facial tissues (10 bonus points)

**Exams**

<table>
<thead>
<tr>
<th>Part</th>
<th>Time</th>
<th>Grade %</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>49 minutes</td>
<td>50%</td>
<td>3-5 free response questions</td>
</tr>
<tr>
<td>B</td>
<td>49 minutes</td>
<td>50%</td>
<td>3-5 free response questions</td>
</tr>
</tbody>
</table>

Exams 1-4 will emphasis the information presented since the last exam, or in the case of exam 1, since the beginning of the semester; however, some information from previous exams may be included since environment factors are closely integrated and are often impacted by changes in other environmental systems. Since we have only 49 minutes to take exams 1-4, it will be impossible for you to have time to complete an exam that includes questions over every detail and topic we cover in class. I will have questions over as many topics as I can and still have an exam that can be completed in the time allotted.
To be prepared, you must study all of the information covered; if you can successfully answer the questions on the exam, I can assume you also know the information that was not included on the exam. The dates for each exam are noted above. You must bring a #2 pencil to each exam.

**Grading**

Grades will be awarded according to the standard format:

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

Grading is approximately as follows:

<table>
<thead>
<tr>
<th>Minor 60%</th>
<th>Major 40%</th>
<th>Quizzes 20%</th>
<th>Lab 20%</th>
<th>Homework 10%</th>
<th>Classwork 10%</th>
</tr>
</thead>
</table>

**Corrections**

All failing grades that are turned in on time can be corrected for an improved grade. Assignments turned in late are not eligible for corrections. To correct a minor grade you must first fill out a minor grade correction form and plan a meeting with Mr. Carrell. Major grade corrections will be assigned in class.

**Common Complaints**

I included this little section to mention a couple of the common pitfalls of dual credit classes. READ THE BOOK. There is **no substitute** for sitting down, turning off the radio/TV, turning up the lights, turning off the computer, shutting off your cell phone and reading. Showing up for tests thinking you’ll just “wing it” will result in **failure, guaranteed**.

There will be students in a million clubs/sports that score the highest in class or on the exams despite their hectic schedule, and there will be students with zero clubs/sports that will get a failing grade. **The choice seems to lie within you somewhere. No one can prepare you for this class and exams better than yourself.**

Common traits of high performing students: Organized, reading ahead, chapter outlines done in advance, answering questions in class, positive outlook, focusing on work at hand.

Common traits of poorly performing students: Disorganized, never reading chapters, no homework done, dead quiet in class discussions. Not doing homework, participating, labs, or blowing off quizzes doesn’t just take away the 20%. It affects the entire grade because you chose not to learn the material.
**Cell Phones**

As a classroom rule, students will be required to lock and store away their phone. Streaming of any kind and social media will not be tolerated. If observed, your phone will be taken up and delivered to the front office. During labs one student per group will be allowed to have their phone in order to photograph the steps of the lab if they wish to include them in their lab write up. The only other time students should have their phone is if I directly specify we are going to use them. **I reserve the right to revoke the privilege to use your phone during lab or other activities if you are found using it for anything other than working on the lab or assignment at hand.**

**Discipline**

Acting out in class, unsafe laboratory behavior, bullying, disrespectful language, and misbehavior in general will result in swift repercussions. I will ask you **once** to cease the behavior. Any subsequent issues will be given an office referral and will count against your participation grade. Office referrals are worth 5% of your participation grade meaning you have two chances. If you are referred to the office twice you will drop one letter grade. No exceptions or excuses.

**Contact**

The easiest way to contact me will be through email: carrell@llanoisd.org or stopping by my room. I will try to respond the same day but delays may occur depending on circumstances at the time. I understand the difficulty of this course and that everyone learns differently. Even if you just need encouragement stop by my room and we’ll talk through it.

**University Policy**

**Academic Honesty and the ASU Honor Code**

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code and the ASU policies on academic dishonesty, which is contained in both print and web versions of the Student Handbook. The penalty for ANY act of dishonesty in this class, including any form of cheating or plagiarism: 1) is a grade of ZERO on the assignment and, 2) disciplinary action as warranted in accordance with university guidelines. Please do NOT jeopardize your career; it’s not worth it.

**Accommodations for students with disabilities**

All students at Angelo State must have the capacity to undertake, with reasonable assistance from the faculty and administration, the academic challenges necessary to fulfill the academic requirements for the degree for certification programs that they are pursuing. If you have a disability and need special accommodations of any nature, you should contact the Student Life Office (Garden Level, University Center, (325) 942-2191 or Student.Life@angelo.edu). I will be happy to make accommodations for you based on the recommendations from the Student Life Office. Please make your request early in the semester to allow time for appropriate arrangements.

**Religious Holy Day**

A student who intends to observe a religious holy day during the semester should make that intention known in writing to the instructor during the first week of the semester and one week prior to the absence. If this submission is completed, a student who is absent from classes for the observance of a religious holy day shall be allowed to take make up missed exams or assignments scheduled for that day in accordance with syllabus policy.

**Title IX**

Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator.