Course Information

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.

The content of Biology 1109 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.

Prerequisite and Co-requisite Courses

It is highly recommended that you take this course concurrently with BIOL 1309.
**Student Learning Outcomes**

The objective of the study of a natural sciences component of a core curriculum is to focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

The SLO’s for this course and the associated activities include:

- **Critical Thinking**
  - (CT1) Students will gather, analyze, interpret and evaluate data.
    - Students will conduct experiments in the lab, gather data and then analyze their results.

- **Communication**
  - (CS1) Students will communicate information via written means on lab activities and projects.
    - Students will conduct lab experiments and communicate their findings in writing to each other and their instructor.

- **Empirical & Quantitative Skills**
  - (EQS1) Students will collect and analyze quantitative data.
    - Students will take measurements as part of a lab experiment. They will analyze their data and generate conclusions.
  - (EQS2) Students will make observations to test a hypothesis and generate conclusions based on their observations.
    - Students will make directed observations, gather data and then analyze their results.

- **Teamwork**
  - (TW2) Students will work together on applied learning activities and collaborate with one another to support course goals.
    - Students will conduct experiments in the lab in groups, gather data and then analyze their shared results.

**Course Delivery**

This is a face-to-face course with learning resources and supplemental materials posted in Blackboard.

**Required Texts and Materials**

You must have regular and reliable access to Blackboard. Some readings will be assigned from a textbook that will be on reserve in the library.

**Communication**

All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.
Grading

Evaluation and Grades
There are 11 lab activities in the semester worth 1200 points:
Our first 10 labs are worth 100 possible points each (1,000 points total). One week you will have the option of doing some additional work to earn bonus points. Points will be earned in various ways including pre-lab quizzes, activities during lab and post-lab quizzes.
The last lab stretches out over a couple of weeks and is worth 200 total points.
Your lab grade is an average of the points earned in all labs. All of your scores will be summed and then divided by the number of points possible. You will receive a zero for any lab you miss.

Grading System
The following grading scale is in use for this course:
  A = 90.00-100 percent
  B = 80.00-89.99 percent
  C = 70.00-79.99 percent
  D = 60.00-69.99 percent
  F = 0-59.99 percent

Assignment and Activity Descriptions
Most weeks you are required to read some background material, take a pre-lab quiz (20 points), participate in a lab activity (60 points), and then take an end of lab quiz (20 points). The end of the semester (approximately the month of April) we will change format and you will spend several weeks researching an environmental problem and then participate in a debate before the class. The details will be explained in class.

General Policies Related to This Course
All students are required to follow the policies and procedures presented in these documents:
  • Angelo State University Student Handbook¹
  • Angelo State University Catalog²

Academic Integrity
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject to disciplinary action and possible expulsion from ASU.
The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.³

Accommodations for Students with Disabilities
ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website.⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures⁵ for more information.

Plagiarism
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.
In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the ASU Writing Center.7

**Student Absence for Observance of Religious Holy Days**
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day8 for more information.

**Title IX at Angelo State University**
The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.  
Director of Title IX Compliance/Title IX Coordinator  
Mayer Administration Building, Room 210  
325-942-2022  
michelle.boone@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information about Title IX in general you may visit www.angelo.edu/title-ix.
## Course Schedule

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Jan 13</td>
<td>Introduction</td>
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<tr>
<td>Jan 20</td>
<td>No Class</td>
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<tr>
<td>Jan 27</td>
<td>Hypothesis Testing</td>
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<td>Feb 3</td>
<td>Variation and Artificial Selection</td>
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<td>Feb 10</td>
<td>Adaptation</td>
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<td>Feb 17</td>
<td>Population Growth</td>
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<td>Feb 24</td>
<td>Energy Flow in Ecosystems</td>
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<td>Mar 2</td>
<td>Extinction: The Game</td>
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<td>Mar 9</td>
<td>No Class</td>
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<td>Mar 16</td>
<td>Texas Biodiversity</td>
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<td>Mar 23</td>
<td>Climate-Biomes</td>
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<tr>
<td>Mar 30</td>
<td>Environmental Problem Letter &amp; Debate Introduction</td>
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<tr>
<td>Apr 6</td>
<td>Debate Preparation</td>
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<tr>
<td>Apr 13</td>
<td>Debate Week 1</td>
</tr>
<tr>
<td>Apr 20</td>
<td>Debate Week 2</td>
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</tbody>
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1. [https://www.angelo.edu/student-handbook/](https://www.angelo.edu/student-handbook/)
2. [https://www.angelo.edu/catalogs/](https://www.angelo.edu/catalogs/)
4. [https://www.angelo.edu/services/disability-services/](https://www.angelo.edu/services/disability-services/)
5. [https://www.angelo.edu/content/files/14197-op-1011-grading-procedures](https://www.angelo.edu/content/files/14197-op-1011-grading-procedures)
7. [https://www.angelo.edu/dept/writing_center/academic_honesty.php](https://www.angelo.edu/dept/writing_center/academic_honesty.php)
8. [https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of](https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of)