Instructor Contact Information

Dr. Michael Dixon  
Office Hours:  
Mon 3:00-5:00
Tue By Appointment
Wed 1:00 - 5:00
Thu 1:00 - 5:00

016 Cavness Science Building  
325-486-6636
michael.dixon@angelo.edu

Course Web Site:  http://www.angelo.edu/bio1409

About This Course

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 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.

Evaluation of each student will be based on performance in both the lecture section (75%) and the lab section (25%).

Student Learning Outcomes (SLO)

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 Materials Required:

*Textbook*


*Internet Access and E-mail*

Some assignments and course materials will be available at the course web site, http://www.angelo.edu/bio1409 or on the Blackboard web site http://blackboard.angelo.edu/.

You are expected to check your e-mail regularly. Your "username@angelo.edu" address will be used for class correspondence unless you enter a substitute address on Blackboard.

**Attendance**

You are expected to attend all lecture and lab periods. The single most important thing you can do to get a good grade in this course is to show up. I will take attendance regularly. You will get a zero on the assignment if you are not present. Quizzes and other in-class activities may not be made up. The only exceptions that are made require prior permission.

**Religious Holy Days:**

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.

**Exams**

There will be four exams given during the semester, including a comprehensive final exam. Each examination will include information presented in class and out of your textbook. Each test will be comprehensive - that is it will include material presented at any time during the course. This is unavoidable because early topics of discussion are built upon and expanded as the course progresses.

Exams will be mostly multiple-choice but may include a few short answer questions. Exams will cover material covered up through the last class day before the exam.

The final exam will be approximately twice the length and number of points as the previous exams.
Missing an exam is a very serious matter. If you have a documented legitimate excuse, such as severe personal illness, a death in your family, or a university-sponsored event, you must notify me before the exam or very promptly afterward. I will work with you if you act responsibly. If you miss an exam for any other reason or do not notify me promptly then I will use the score you get on the final exam to replace ONE missing exam grade. You will receive a zero if you miss more than one exam.

As a reward to those of you who put in the necessary work, the final exam is optional if you have an “A” average in all of your work at the end of the semester. This includes both the lab and lecture portions of this course.

Laboratory
Lab attendance is mandatory. Any lab you miss due to an unexcused absence cannot be made up, and for that lab you will receive a zero. If you are unsure about the validity of your excuse, please visit with your scheduled lab instructor. Any student who misses his/her regularly scheduled lab has only one chance to make it up. You must have written permission to attend the make-up lab. The make up lab each week begins at 1:00 pm on Friday (of the same week), in room 014 of the Cavness Science Building.

Final Grade Calculation
Your grade in this course will be determined by adding together all of the points you earn on your tests, quizzes and any other assignments and then dividing this number by the total number of points possible. “Extra credit or bonus” assignments will be added in to the total you earned without adding them into the number of possible points. This will be your lecture average. It is worth 75% of your course grade.

All of the scores on your laboratory exercises will be averaged together to determine your laboratory average. This is worth 25% of your course grade.

Your semester grade will be determined using the scale:
- 90 – 100% = A
- 80 – 89% = B
- 70 – 79% = C
- 60 – 69% = D
- <60% = F

Rounding off of averages or the use of a curve may occur at the instructor’s discretion.

An example of how to calculate your average is posted on the course web site.

Academic 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, which is contained in both print and web versions of the Student Handbook.

Special Needs
Angelo State University cannot require a student to disclose that they have a disability. Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request and to implement academic accommodations. ASU Faculty have been instructed by the University that “in order to maintain consistency in services across campus”, we are to provide no accommodation without authorization from the Office of Student Life.
Withdrawal From the Course
You are not automatically withdrawn from a course if you stop attending. If you stop attending and do not withdraw I am required to submit a grade for you. This “F” cannot be removed.

Lecture Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>Introduction, Syllabus</td>
<td>1</td>
</tr>
<tr>
<td>Methods and limitations of science</td>
<td>1</td>
</tr>
<tr>
<td>Chemistry and Energy</td>
<td>2</td>
</tr>
<tr>
<td>Life and It’s Interactions</td>
<td>3 &amp; 4 (maybe some 5)</td>
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<tr>
<td>Human Populations</td>
<td>8</td>
</tr>
<tr>
<td>Agriculture, Biotechnology</td>
<td>9, 10</td>
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<tr>
<td>Biodiversity</td>
<td>11</td>
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<tr>
<td>Additional chapters, pages and readings will be announced</td>
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Test Schedule

<table>
<thead>
<tr>
<th>Exam</th>
<th>Topic</th>
<th>Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Intro - Evolution</td>
<td>Feb 9</td>
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<tr>
<td>2</td>
<td>Evolution - Populations</td>
<td>Mar 9</td>
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<tr>
<td>3</td>
<td>Populations – Agriculture</td>
<td>Apr 13</td>
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<tr>
<td>Final</td>
<td>EVERYTHING!</td>
<td>Wednesday, May 9, 10:30 AM</td>
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