



**Syllabus:** Principles of Biology I for Science Majors and Lab

**Course Number:** BIOL 1406

**Semester & Year:**

**Instructor Information**

Name: Katie Teer

BS in Secondary Education- Life Science

MS in Curriculum and Instruction with 18 hours in Biology

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**Textbook Information**

*Biology.* Campbell and Reece 6th edition (2002)

**Student Learning Outcomes for the Course**

At the conclusion of the **lecture and lab portion** of this course students should be able to:

1. Describe the characteristics of life.
2. Explain the reasoning used by scientists.
3. Identify the basic properties of substances needed for life.
4. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
5. Describe the structure of cell membranes and the movement of molecules across a membrane.
6. Identify the substrates, products, and important chemical pathways in metabolism.
7. Identify the principles of inheritance and solve classical genetic problems.
8. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
9. Describe the unity and diversity of life and the evidence for evolution through natural selection.
10. Be able to apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
11. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
12. Communicate effectively the results of investigations.

**Student Assessment**

- Each six weeks will be 50% Tests and 50% Quizzes/Labs/Daily Work
- Your semester average will be calculated with each six weeks counting once and the semester final counting once.
- Every student (dual credit or not) will be required to take semester exams.

**Grading Scale for dual credit course:** (Anything below a 70 is an F for high school credit!)

Semester Grade	Course Average
A	90-100
B	80-89
C	70-79
D	60-69
F	59-below

## **Class Schedule**

### **1st Six Weeks**

- Science Processes and Experimental Design
- Biochemistry
- Energy and Metabolism

### **2nd Six Weeks**

- Cells
- Cell Membrane and Transport
- Harvesting Chemical Energy
- Photosynthesis
- Cell Communication
- The Cell Cycle

### **3rd Six Weeks**

- Meiosis
- Genetics and Inheritance
- DNA and Protein Synthesis
- Gene Regulation

## **Absentee Policy**

The course will follow the Pleasant Grove High School attendance policy.

## **Make-up Policy**

At least two test grades will be given each six weeks. Since tests count 50% of the student grade, it is very important that the student do his or her best and be prepared and present for each test. No retakes are allowed for any assignment, quiz or test. If a student is not present on the day a test is administered or lab conducted, an alternative test or lab activity may be taken or assigned. These must be done in the appropriate time frame based on district policy. Alternatives will cover the same material; however, number of questions and format is at the teacher's discretion. Students are welcome to complete assignments in advance.

## **Class Rules**

1. Be on time.
2. Be prepared.
3. Be respectful.

## **Expectations**

1. Work hard.
2. Be responsible.
3. Be open to learning new concepts.
4. Gain a respect, if not love of, science.

## **Materials**

1. Something to write on, something to write with, and somewhere to keep your work.
2. Projects may require additional materials as needed.

## **Classroom Policies and Procedures**

1. No cheating!!! Academic dishonesty is prohibited in my classroom. This may result in a zero on the assignment, a call to parents, and a deduction off your conduct grade.
2. No cell phones or electronic devices at any time during instruction, quizzes or tests. Cell phones or other devices may be allowed during certain times per teacher permission.
3. If you have a planned absence it is your responsibility to get your work ahead of time. If it is unexpected, you must get your work upon return. **YOU** are responsible for this!!
4. PowerPoints and some other notes will be posted on my web page.
  - a. Go to [www.pgisd.net](http://www.pgisd.net) → high school → teacher web pages
  - b. This is an excellent resource if you miss class
  - c. See me before class for other missed assignments
5. Take advantage of morning tutorials 7:45-8:15. This is an excellent opportunity for help!
6. Quizzes are often given following notes or any assigned readings.
7. NO RETAKES OR RETESTS ON ANY ASSIGNMENT!!!
8. Each student will receive one "OOPS" pass each six weeks. This can be used to turn in one late daily assignment **or** it may be used to drop the lowest daily grade for the six weeks.
9. Late projects WILL NOT be accepted!
10. Bonus opportunities may be given on quizzes, tests, or other times throughout the six weeks. These will vary and will be announced.

## **Group Work**

- Science is social and group work is highly encouraged both in and out of class (except on quizzes and tests!)
- However...
  - Group work involves: working together, sharing ideas, helping each other, collaborating, brainstorming, discussing
  - Group work does not involve: copying, splitting up the work, telling answers, one person working while the others relax

## Labs

- Students must follow all safety guidelines. Failure to do this can result in removal from the lab and alternative assignments.
- Not all labs will be able to be completed during class time. Parts of some labs must be done outside of class, including pre and post lab assignments. Some labs require students to come in at times other than normal class times and it is the students'/group's responsibility to do so.
- In labs, students will be encouraged to engage in the following:
  - Generate questions for investigation
  - Choose which variable to investigate
  - Design and conduct experiments
  - Design experimental procedures
  - Collect, analyze, interpret and display data
  - Determine how to present conclusions
- Lab work will be presented and recorded in a variety of ways. This may include lab handouts, mini-posters and presentations, or lab notebooks.
- Labs may also include pre-labs and lab reflections.
- It is very important to be present on lab days. Missing lab work is very difficult to make-up.

## Academic Integrity Statement

Scholastic dishonesty, involving but not limited to cheating on a test, plagiarism, collusion, or falsification of records will make the student liable for disciplinary action after being investigated by the Dean of Students. Proven violations of this nature will result in the student being dropped from the class with an "F".

This policy applies campus wide, including TC Testing Center, as well as off-campus classroom or lab sites, including dual credit campuses. This information can be found in the Student Handbook at <https://texarkanacollege.edu>.

## Disability Act Statement

Texarkana College complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. Please contact Larry Andrews at 903.823.3283, or go by the Recruitment, Advisement, and Retention Department located in the Administration building for personal assistance.

If you have an accommodation letter from their office indicating that you have a disability which requires academic accommodations, please present it to me so we can discuss the accommodations that you might need for this class. *It is best to request these changes at the beginning if not before the start of class* so there is ample time to make the accommodations..

**By signing this statement, I agree that I have received Mrs. Teer's syllabus, read it, and understand what is expected of me to perform satisfactorily in this course of study.**

\_\_\_\_\_  
Student Name (**PRINT** First & LAST NAME)

\_\_\_\_\_  
Legal Signature

\_\_\_\_\_  
TC Course Number / Section Number

\_\_\_\_\_  
Date