



**Syllabus:** Concepts of Biology  
**Course Number:** BIOL 1308/BIOL 1108 (Lab)  
**Semester & Year:** master  
**Instructor:** Mallory Thompson  
**Email:** [mthompson@redwaterisd.org](mailto:mthompson@redwaterisd.org)

### **Textbook and Lab Manual Information and Required Reading**

Concepts of Biology by OpenStax, ISBN 978-1-938168-11-6, a free textbook available to students at the following website: <https://openstaxcollege.org/textbooks/concepts-of-biology>

\*\*\*Print versions also available at the same website.

### **Student Learning Outcomes for the Course:**

1. Distinguish between prokaryotic, eukaryotic, plant and animal cells and identify major cell structures.
2. Identify stages of the cell cycle, mitosis (plant and animal) and meiosis.
3. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis and cellular respiration.
4. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
5. Describe karyotyping, pedigrees, and biotechnology and provide an example of the uses of each.
6. Identify parts of a DNA molecule, and describe replication, transcription and translation.
7. Analyze evidence for evolution and natural selection.
8. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
9. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
10. Communicate effectively the results of scientific investigations.
11. Describe the nature and composition of ecosystems and explain the process of energy flow and cycling.
12. Explain the need of environmental awareness on earth today as it relates specifically to resource conservation, population growth, and environmental quality.

### **Student Requirements for Completion of the Course:**

*Chapters 1-10, 19-21*

1. Introduction to Biology
2. Chemistry of Life
3. Cell Structure and Function
4. How Cells Obtain Energy
5. Photosynthesis
6. Reproduction at the Cellular Level
7. The Cellular Basis of Inheritance
8. Patterns of Inheritance
9. Molecular Biology

- 10. Biotechnology
- 19. Population and Community Ecology
- 20. Ecosystems and the Biosphere
- 21. Conservation and Biodiversity

**Student Assessment**

(1) 5 Lecture Tests	<b>500 points (50%)</b>
(2) 1 Final Exam	<b>200 points (20%)</b>
(3) 12 Quizzes	<b>200 points (20%)</b>
(4) 5 Essays	<b><u>100 points (10%)</u></b>
<b>TOTAL:</b>	<b>1000 pts</b>

Grading Rubric	
<b>A</b>	89.5% - 100%
<b>B</b>	79.5% - 89.4%
<b>C</b>	69.5% - 79.4%
<b>D</b>	60% - 69.4%
<b>F</b>	59%-below

Lecture and lab tests will mainly cover material presented in the text and lab manual, but may also include extra materials presented by Mrs. Thompson. All tests are based on the 100-point scale. All tests must be taken! If one is missed, it must be taken the next class attended, or a zero will be recorded unless specific plans have been made otherwise. There will be weekly chapter quizzes on Fridays, as designated below in the class schedule. Quizzes are worth 20 points each, and cannot be made up unless they are missed due to an excused absence. Students will be allowed to drop their 2 lowest quiz grades. Students will also be required to write one essay per unit (20 pts each), covering the information included in the chapters, intended to help review the material and promote literacy in the classroom.

**Class Schedule**

Week by week account of topics, exams, due dates. These dates may vary slightly according to class discussions and campus meetings, etc.

Date	Material to be covered	Assignment
Monday 8/25	Go over syllabus, pre-assessment	
Tuesday 8/26	School Handbook Discussion	Read Chapter 1
Wednesday 8/27	Chapter 1	
Thursday 8/28	Chapter 1 & 2	
Friday 8/29	QUIZ Chapter 1	Read Chapter 2
Week 2	Chapter 2	
Friday 9/5	QUIZ Chapter 2	Read Chapter 3
Week 3	Chapter 3	
Week 4	Chapters 3	
Friday 9/19	QUIZ Chapter 3, Review for EXAM 1	<i>Study for chapters 1-3 test!</i>
<b>Monday 9/22</b>	<b>EXAM 1: Chapters 1-3</b>	Read chapter 4
Week 5	Chapter 4	
Friday 9/26	QUIZ Chapter 4	Read chapter 5
Week 6	Chapter 5	
Friday 10/3	QUIZ Chapter 5, Review for EXAM 2	<i>Study for chapters 4 &amp; 5 test!</i>
<b>Monday 10/6</b>	<b>EXAM 2: Chapters 4 &amp; 5</b>	Read chapter 6

Week 7 (10/6-10/8)	Chapter 6	
Week 8	Chapter 6	
Friday 10/17	QUIZ Chapter 6	Read chapter 7
Week 9	Chapter 7	
Friday 10/24	QUIZ Chapter 7	Read chapter 8
Week 10	Chapter 8	
Friday 10/31	QUIZ Chapter 8, Review for EXAM 3	<i>Study for chapters 6-8 test!</i>
<b>Monday 11/3</b>	<b>EXAM 3: Chapters 6-8</b>	Read chapter 9
Week 11	Chapter 9	
Friday 11/7	QUIZ Chapter 9	Read chapter 10
Week 12	Chapter 10	
Friday 11/14	QUIZ Chapter 10, Review for EXAM 4	<i>Study for Chapters 9 &amp; 10 test!</i>
<b>Monday 11/17</b>	<b>EXAM 4: Chapters 9-10</b>	Read chapter 19
Week 13	Chapter 19	
Friday 11/21	QUIZ Chapter 19	
<b>11/24 – 11/28</b>	<b>THANKSGIVING BREAK</b>	<i>No school – Read Chapter 20</i>
Week 14	Chapter 20	
Friday 12/5	QUIZ Chapter 20	Read chapter 21
Week 15	Chapter 21	
<b>Friday 12/12</b>	<b>EXAM 5: Chapters 19-21</b>	<i>Study for chapters 19-21 test</i>
<b><u>Week 16</u></b>	<b><u>FINAL EXAM</u></b>	<i>Study ALL chapters covered</i>

### Course Overview and Description:

This is a 3 hour course designed for non-science majors, to be taken in conjunction with the lab section, BIOL 1108. The process and method of science applied to understanding biological concepts at the molecular, cellular, organismal and community levels is taught. There is an overview of major groups of organisms with respect to their diversity in organization, processes, interactions and adaptations including human impact upon the environment. The scientific method and social applications of scientific information to related human issues are stressed throughout the course. Students are expected to read the required chapter material prior to lecture time in order to be able to discuss the material and ask appropriate questions.

### Absentee Policy

Texarkana College's absentee policy allows instructors to withdraw a student from a course due to excessive absences. If a student leaves and returns during class or leaves the class before the class is over, he/she **may** be considered absent.

Faculty members **are not** obligated to provide opportunities for students to make-up missed assignments and tests as a result of a student's absence from class. Regular attendance enhances academic success. As such, students are expected to attend each meeting of their registered courses.

A student should not stop attending a class without formally withdrawing from the course by the institution's published Last Day for Student to Drop. If a student stops attending class after the published Last Day for Students to Drop, the student **may** receive a grade of "F" in the class. The instructor will submit the last date of attendance for students receiving a grade of "F" or "W".

### **Make-up Policy**

All tests must be taken as soon as you return to class or you will receive a zero! The test must be taken during the next class attended, unless specific plans have been made otherwise. **THERE WILL BE NO RETAKES ON TESTS!**

### **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. Proven violations of this nature will result in the student being dropped from the class with an "F". This policy also applies campus wide, including the 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 the Recruitment, Advisement and Retention Office in the Administration Building for personal assistance.