**Syllabus:** Concepts of Biology I for *Non- Science Majors* - **LABORATORY**
**Course Number:** **BIOL 1108.HK**
**Semester & Year:** FALL 2019

**Instructor Information**

 Name: Mark Storey
 Office: Chemistry Building Rm. 202
 Telephone: 903-823-3298
 **E-mail:** **Mark.Storey@texarkanacollege.edu**

Office Hours: (Please email for an appointment)

**Lab Instructor / Course Proctor: Dr. Stacey Thomas - Hooks High School**

**Textbook Information**

 All lab activities will be based on the materials contained online and available through the BIOL 1108 lab page on the TC Online LMS /Moodle course page.

**Student Learning Outcomes for the Course**

*At the conclusion of the* ***laboratory portion*** *of this course students should be able to:*

1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.

2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.

3. Communicate effectively the results of scientific investigations.

4. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.

5. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.

6. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.

7. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.

8. Identify the importance of karyotypes, pedigrees, and biotechnology.

9. Identify parts of a DNA molecule, and describe replication, transcription, and translation.

10. Analyze evidence for evolution and natural selection.

**TURNING IN ASSIGNMENTS and Quizzing**

All lab activities and assessments will be coordinated by the onsite instructor (proctor) for the lab course.

**IMPORTANT**: Be sure to look at your posted grades and attendance record on myTC. If you see any issues there please bring them to my attention ASAP. Be sure to save my reply emails to your email submissions and copies of all correspondence as proof of completing your work if any questions arise later in the semester.

**Student Requirements for Completion of the Course**

**Laboratory Topics/ Exams - Biology 1108.HYB**

**The following units will be completed per the schedule on the BIOL 1108.MA Laboratory page on TC Online Course LMS (Moodle)**

Lab 1 Activity - Safety and Laboratory Techniques

Lab 2 Activity - Polar Bonding

Lab 3 Activity - Biomolecules

Lab 4 Activity - Cells

Lab 5 Activity - Enzymes

Lab 6 Activity - Diffusion and Osmosis

Lab 7 Activity - Photosynthesis

Lab 8 Activity - Respiration

Lab 9 Activity - Mitosis **(virtual lab - no lab kit/ manual material)**

Lab 10 Activity - DNA Extraction

Lab 11 Activity - Gene Expression

Lab 12 Activity - Meiosis

Lab 13 Activity - Mendelian Genetics

Lab 14 Activity - Human Genetics **(virtual lab - no lab kit/manual materials)**

Lab 15 Activity - Reproduction and Development **(virtual lab - no lab kit/manual materials)**

LECTURE & **LAB** BIOL 1308 & **BIOL 1108. ROADMAP – FALL 2019 – SPRING 2020**

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| **Dates** | **Wks**  | **Lecture & Lab Weekly Activities** |
| 9-03 9-15 | 1-2 | Course Pre-Test Lect.Intro to Biology Lesson / Progress Check/ Graded Quiz**Lab 1 Safety and Laboratory Techniques** |
| 9-169-29 | 3-4 | Chemistry of Life Lesson / Progress Check/ Graded Quiz**Lab 2 Polar Bonding** |
| 9-3010-13 | 5-6 | Biomolecules Lesson/ Progress Check/ Graded Quiz**Lab 3** **Biomolecules**  |
|  10-14**10-27** | 7-8 | Cells Lesson / Progress Check/ Graded QuizLecture Exam 1 Mon-Fri (online); check answers Sat-Sun**Lab 4 Cells**  |
| 10-2811-10 | 9-10 | Basics of Energy Exchange Lesson Biology / Progress Check/ Graded Quiz**Lab 5 Enzymes** |
| 11-1111-24 | 11-12 | Cell Membranes and Material Movement Lesson Biology / Progress Check/ Graded Quiz**Lab 6 Diffusion and Osmosis** |
| 12-212-15 | 13-14 | Photosynthesis Lesson Biology / Progress Check/ Graded Quiz**Lab 7 Photosynthesis** |
|  |  | **CHRISTMAS BREAK** |
| 1-06-201-19 | 15-16 | Respiration LessonBiology / Progress Check/ Graded Quiz**Lab 8 Respiration** |
| 1-20**2-02** | 17-18 | Cell Division Lesson Biology / Progress Check/ Graded QuizLecture Exam 2 M-Fri (online)**Lab 9 Mitosis** |
| 2-032-16 | 19-20 | DNA Replication Lesson / Progress Check/ Graded Quiz + Gene Expression Lesson / Progress Check/ Graded Quiz**Lab 10 DNA Extraction** |
| 2-17**3-01** | 21-22 | Lecture Exam 3 Mon-Fri **Lab 11 Gene Expression** |
| 3-023-15 | 23-24 | Sexual Reproduction Lesson / Progress Check/ Graded Quiz**Lab 12 Meiosis** |
|  |  | **SPRING BREAK WEEK** |
| 3-234-05 | 25-26 | Patterns of Inheritance Lesson/ Progress Check/ Graded Quiz &Human Genetics Lesson/ Progress Check/ Graded Quiz**Lab 13 Mendelian Genetics** |
| 4-06**4-19** | 27-28 | Reproduction and Development Lesson / Progress Check/ Graded QuizLecture Exam 4 online Mon – Fri**Lab 14 Human Genetics** |
| 4-205-03 | 29-30 | **Lab 15 Reproduction and Development** |

**The course grade will be calculated from the following schedule:**

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| --- | --- |
| **Lab Unit Activity / Quiz**  | **100%** |
| **Total** | **100%** |

**Grading Scale**

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| --- | --- |
| **Semester Grade**  | **Course Average** |
| **A** | 89.5-100 |
| **B** | 79.5-89.4 |
| **C** | 69.5-79.4 |
| **D** | 59.5-69.4 |
| **F** | 59.4-below |

**Make-up Policy - The ability for a student to make up a lab assessment is completely at the discretion of the lab instructor/ proctor.**

**ABSENTEE POLICY**

**Texarkana College’s absentee policy allows instructors to withdraw a student from a course due to excessive absences**

**WARNING: If you exceed the maximum number of absences for this course you may be dropped (W) from the course.**

**You can view your attendance record on the *myTC* portal under the student tab**

If circumstances develop (e.g. extended illness, moving from the city, etc.) which necessitates your withdrawal from this or any other course be sure to let me know AND officially withdraw in the Director of Admissions office located in the C. M. Nelson Administration building. The date each semester is posted on the inside page of the current Texarkana College Catalog / Website under "Academic Calendar". A grade of W is recorded on your permanent transcript*if**you withdraw before the official deadline*.

**Any student that has a cell phone or any electronic communications device in their possession during any quiz or examination will receive a zero (0) for the quiz or examination. NO EXEPTIONS! You will also be counted absent for that class session.**

**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 Prof. Tonja Blaise 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.

**Financial Aid:**

**Attention!** Dropping this class may affect your funding in a negative way! You could owe money to the college and/or federal government. Please check with the Financial Aid office before making a decision.

# Course Continuity Plan

In the case that the college officially closes because of an emergency (inclement weather etc.) which causes a short term disruption of this course, we will use the TC Moodle CMS (“TC Online”) and TC student e-mail to continue this course in the short term (1-3 weeks). All students need to use their campus e-mail to receive course related information.

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| **I reserve the right to modify the syllabus at any time during the semester. The online version of this syllabus (*TC Online CMS*) is the official syllabus and supersedes all versions of this document in print.**  |
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By signing this statement, I agree that I have read and understand what is expected of me to perform satisfactorily in this course of study. *I also understand that any photographic and or audio recordings that are made of students including myself) during this class of are the property of Texarkana College and can be used to promote the educational mission of Texarkana College.*

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

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Legal Signature

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Date