**Syllabus:** Principles of Biology I for Science Majors - **LABORATORY**
**Course Number:** **BIOL 1106**
**Semester & Year:** MASTER COPY

**Instructor Information**

 Name: Sybil Rice
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 Telephone: 903-832-1350
 E-mail: sybil.rice@leisd.net or Sybil.rice@texarkanacollege.net

**Textbook Information**

* TC Online LMS download / print
* Biology – Openstax Rice University (alternative textbook) <https://openstaxcollege.org/textbooks/biology>
* Protective clothing - Safety glasses will be required for certain lab activities, lab coat or apron (old work shirt) is encouraged.

**Student Learning Outcomes for the Course**

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

1. Be able to 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 investigations.
4. Demonstrate knowledge of modern evolutionary synthesis, natural selection, Mendelian inheritance, micro and macroevolution, and speciation.
5. Distinguish between phylogenetic relationships and classification schemes.
6. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
7. Describe basic animal physiology and homeostasis as maintained by organ systems.
8. Compare different sexual and asexual life cycles noting their adaptive advantages.
9. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

**Lab Reports and other written assignments** in lab are due at the beginning of the class session and will be penalized 10% for being late for the first 24 hours and 20% for the second 24 hours and will not be accepted after 48 hours. Late work can be turned in via e-mail to my e-mail address: *sybil.rice@leisd.net*

**Student Requirements for Completion of the Course**

**Laboratory Topics/ Exams - Biology 1106**

**Unit I**

Laboratory Safety

Soybeans & SO2 - Experimental Design

Scientific Measurement The Microscope Intro to Lab Quest & Data Collection and Analysis (Temperature Change of a Solution of Weak Acid and a Weak Base) The Cell

**Lab Exam I (Unit I)**

**Unit II**

Diffusion / Osmosis

Enzymes (Catalase Lab)

Chlorophyll – Chromatography of spinach leaves

Chlorophyll – Spectrophotometry of spinach leaves

Aerobic Cellular Respiration of Yeast / Peas

Cell Division Cell Cycle Mitosis

Cell Division – Meiosis

Monohybrid and Dihybrid Crosses Problem Sets (Mendelian Genetics and exceptions)

DNA Replication

Transcription and Translation (Protein Synthesis)

Prokaryotic Gene Regulation and Expression

***Lab Exam II***

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

|  |  |
| --- | --- |
| **Laboratory Exams (3)**  | **60%** |
| **Participation** | **10%** |
| **Lab Reports** | **30%** |
| **Total** | **100%** |

**Grading Scale**

|  |  |
| --- | --- |
| **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**

**Lab Exams can not be made up in this course. If you know you are going to miss a lab exam you will need to make arrangements with the instructor to take the exam in advance.**

**Class Conduct**

 Students are expected to conduct themselves as adults. Any student who acts in such a manner as to disturb the class and interfere with the learning process will be expelled from the course with a grade of "F". **No music players or cellular phones are permitted in my classroom**. **No texting or talking on a phone or messaging device during class...TURN THEM OFF!**

If you bring a cell phone (electronic communication device) into my classroom,be sure that it is **turned off and not out on your desk.** If I notice you using your phone during lecture and ask you to turn it off on the first offense the second time **you will be asked to leave and you will be counted absent for that class period.** (You will be free to communicate electronically during breaks during each class session.)

**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.**

**All electronic devices** (e.g. audio recorders, laptop/tablet computers etc.) brought into class must be cleared by the instructor for use for **each** 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 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..

**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.** ***Current version last updated:***  |

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

Biology 1107\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TC Course Number / Section Number

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Date