

**BIOLOGY 1107 (L01-L03) BIOLOGY II LABORATORY
SRSU SPRING 2023 SYLLABUS**

Lab Room: WSB 206
Lab Section/Time: L01: Tuesday 1:00 - 2:40; L02: Tuesday 3:00 - 4:40;
L03: Wednesday 8:00 - 9:40
Lab instructor: Jeff Keeling (L01) jkee675@sulross.edu
Asia Cornelius (L02 & L03) adc20gs@sulross.edu
Office hours: pending, will update soon.

Course description: This class provides a survey of evolutionary/ecological concepts in biology as well as teaches students fundamental skills and laboratory methods in science.

Course objectives:

1. Utilize the scientific method.
2. Develop an understanding of the role of evolutionary theory and its relation to biological diversity.
3. Explore the physical, morphological, and physiological characteristics of living organisms.
4. Enhance critical thinking skills.

Grading: The table below illustrates the grading for this course.

9 Quizzes	ca. 180 points
3 Lab practicals	ca. 330 points
Lab Report	100 points
Additional Assignments	75 points
Total Credit	685 total points

Tentative Laboratory Schedule:

Date	Topic
Jan 31/Feb 1	The Scientific Method
Feb 7/8	Finding/Utilizing Scientific Literature
Feb 14/15	Natural Selection
Feb 21/22	Lab Practical #1
Feb 28/Mar 1	Phylogeny/Systematics
Mar 7/8	Microscopy, Bacteria, Protists
Mar 14/15	Plant/Fungi Diversity
Mar 21/22	***SPRING BREAK***
Mar 28/29	Plant Anatomy
Mar 22/23	Lab Practical #2
Apr 4/5	Animal Diversity/ Form and Function
April 11/12	Invertebrates
Apr 18/19	Vertebrates
Apr 25/26	Lab Practical #3/Lab reports due

STUDENT LEARNING OUTCOMES (SLOS) The graduating biology student graduating with a BS in Biology should be able to: 1) The student will be able to demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA. 2) The student will be able to demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing. 3) The student will be able to use biological instrumentation to solve biological problems using standard observational strategies. 4) The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

CORE OBJECTIVES ADDRESSED: 1) Communication Skills – Students will effectively communicate the results of scientific investigations; using oral, written, and visual communication, either in group discussions or on written exams. 2) Critical Thinking Skills – Students will include creative thinking, innovation, inquiry, and analysis required to relate new information with previous information in a way that demonstrates the diversity and similarity due to evolutionary ancestry. 3) Empirical and Quantitative Skills – Students will use basic math skills to solve problems (e.g. related to genetic outcomes, cellular energy production, and probability) resulting in informed conclusions. 4) Teamwork Skills – Students will work effectively with others to support a shared goal during lab sessions on activities, such as dissections, problem solving, and other experimental procedures.

MARKETABLE SKILLS: A student getting a degree in the Biological sciences would be expected to acquire the following marketable skills by graduation. 1) Students will be able to organize, analyze, and interpret data. 2) Students will be proficient at using presentation software. 3) Students will acquire experience in managing time and meeting deadlines. 4) Students will gain the ability to speak effectively and write concisely about scientific topics. 5) Students will acquire experience and guidance in the development of professional email correspondence.

SRSU Attendance Policy. Roll will be taken during each class meeting. The SRSU catalog states “The instructor may, at their discretion, drop a student from a course when the student has a total of nine absences in lecture and three absences in lab. An absence is defined as non-attendance in fifty minutes of class. Exams must be taken on the scheduled exam date that will be announced at least a week prior, unless other arrangements have been made with the instructor. Exams must be made up within a week form the scheduled date. **RULE TO LIVE BY: DON’T MISS ANY CLASSES!** If you absolutely have to miss, make sure you let me know before.

Academic Integrity. Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person’s work as one’s own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden.

ADA Statement

SRSU Disability Services. Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine Students seeking accessibility/accommodations services must contact Mary Schwartz, LPC, SRSU's Accessibility Services Coordinator at 432-837-8203, or email mschwartz@sulross.edu. Our office is located on the first floor of Ferguson Hall – room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine, Texas, 79832.

Library Information

The Bryan Wildenthal Memorial Library and Archives of the Big Bend in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

Additional information for students at Rio Grande College:

The Southwest Texas Junior College (SWTJC) Libraries at Uvalde, Del Rio, and Eagle Pass offer additional access to library spaces and resources. Del Rio, Eagle Pass, and Uvalde students may additionally use online resources available through SWTJC website, library.swtjc.edu. The SWTJC Libraries serve as pick-up locations for InterLibrary Loan (ILL) from the Alpine campus.

SRSU Distance Education Statement

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

Classroom Climate of Respect

Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

Diversity Statement

I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.