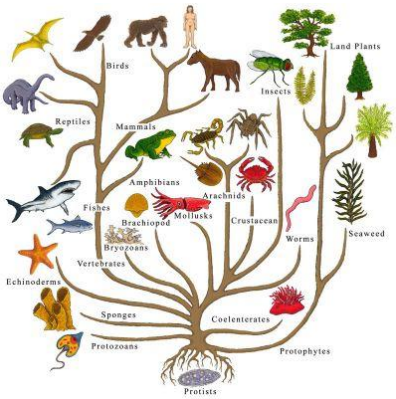
BIOL 1307 BIOLOGY FOR MAJORS II (3 credits)
SUL ROSS STATE UNIVERSITY SPRING 2025



Instructor: Dr. Clifton F. Albrecht
Office: WSB 218
Email: cfa25gj@sulross.edu

Course Meeting Times: Monday/Wednesday 9:30 - 10:45 am in WSB 201

Office Hours: Monday 12 - 12:50 pm; Tuesday 9 - 9:50 am; Wednesday 12 - 12:50 pm; Thursday 9 - 9:50 am; or by appointment

Hawkes Biology Textbook: Biology, Hawkes Learning, 2024. ISBN: 978-1-64277-642-3

Course Description: This course covers the foundational concepts of natural selection, evolution, and speciation, prokaryotic and eukaryotic diversity, and ecological principles.

Course Objectives.

- Describe the different processes by which natural selection can shape the structure of populations.
- Describe the current understanding of diversity and evolutionary relationships among organisms.
- Describe where representative prokaryotic organisms are found in the environment, their important relationships with other organisms, and important adaptations.
- Identify distinguishing features of eukaryotes, as well as key features of major divisions.
- Examine the process of reproduction and trace the life cycles of representative animals.
- Relate the basic principles of ecology to the diversity and distribution of organisms on earth.

Grading:

Category	**Total Points**	**Percentage of Grade**
3 Lecture Exams (50 questions, 150 points per exam)	450	61.6% total (20.5% per exam)
13 Chapter Quizzes (10 questions, 10 points per quiz)	130	17.8% total (1.4% per quiz)
3 Section Quizzes (50 questions, 50 points per assignment)	150	20.5% total (6.8% per assignment)
TOTAL	730	100%

ATTENDANCE AND MAKEUP EXAMS. If you arrive for an exam after other students have completed and turned in their exams, you will not be allowed to take the exam.

- Missing any exam without notifying me in advance will result in a zero for that exam grade—no exceptions.
- You'll have seven days (including weekends) from the test date to make up the missed exam; often the makeup exam will be different from the original exam.
- If you fail to appear—or appear late—for your scheduled makeup exam, you will receive a zero.
- Finally, if you miss a class, it is your responsibility to get notes and other important information from a classmate.

LATE POLICY: 10% deduction for each day late (including weekends).

STUDENT LEARNING OUTCOMES (SLOS) The 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 the 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 writingskills by summarizing and critiquing recent relevant biological literature.

LECTURE SCHEDULE

WEEK		TOPIC	CHAPTER
Week 1	**Jan 13**	**No class – Semester has not begun**	
	Jan 15	Intro. to Course; Intro. to Evolution	18
Week 2	**Jan 20**	**No class – MLK Jr. Holiday**	
	Jan 22	Origin of Species	18
Week 3	**Jan 27**	Evolution of Populations; **Ch. 18 Quiz (in class)**	19
	Jan 29	History of Life on Earth; **Ch. 19 Quiz (in class)**	20
Week 4	**Feb 3**	Prokaryotes: Bacteria & Archaea; **Ch. 20 Quiz (in class)**	22
	Feb 5	Protists; **Ch. 22 Quiz (in class)**	23
	Feb 6	**Section Quiz 1 due by 11:55 pm**	
Week 5	**Feb 10**	Pre-exam review	
	Feb 12	**EXAM 1 (Ch. 18, 19, 20, 22, & 23)**	
Week 6	**Feb 17**	Fungi	24
	Feb 19	Seedless Plants; **Ch. 24 Quiz (in class)**	25
Week 7	**Feb 24**	Seed Plants; **Ch. 25 Quiz (in class)**	26
	Feb 26	Animal Diversity; **Ch. 26 Quiz (in class)**	27
Week 8	**Mar 3**	Invertebrates 1; **Ch. 27 Quiz (in class)**	28
	Mar 5	Invertebrates 2	28
Week 9	**Mar 10**	Vertebrates 1; **Ch. 28 Quiz (in class)**	29
	Mar 12	Vertebrates 2	29
Week 10	**Mar 17-21**	**SPRING BREAK**	
Week 10	**Mar 23**	**Section Quiz 2 due by 11:55 pm**	
Week 11	**Mar 24**	Pre-exam review	
	Mar 26	**EXAM 2 (Ch. 24, 25, 26, 27, 28, & 29)**	
Week 12	**Mar 31**	Ecology and Biosphere 1	44
	Apr 2	Ecology and Biosphere 2	44
Week 13	**Apr 7**	Pop. and Comm. Ecology 1; **Ch. 44 Quiz (in class)**	45
	Apr 9	Pop. and Comm. Ecology 2	45
Week 14	**Apr 14**	Ecosystems 1; **Ch. 45 Quiz (in class)**	46
	Apr 16	Ecosystems 2	46
Week 15	**Apr 21**	Cons. Bio. and Biodiv. 1; **Ch. 46 Quiz (in class)**	47
	Apr 23	Cons. Bio. and Biodiv. 2; **Quant follow-up (in class)**	47
Week 16	**Apr 27**	**Section Quiz 3 due by 11:55 pm**	
	Apr 28	Pre-exam review; **Ch. 47 Bonus Quiz (in class)**	
	Apr 30	**EXAM 3 (Ch. 44, 45, 46, & 47)**	
Week 17		**MAKEUP EXAMS 1-3** (during final exams slot)	

CORE OBJECTIVES ADDRESSED:

1) Communication Skills – Students will effectively communicate the results of scientificinvestigations, using oral, written, and visual communication, either in group discussions or on written exams.

2) CriticalThinking 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 theinstructor. Exams must be made up within a week form the scheduled date. RULE TO LIVE BY: DON'T MISS ANY CLASSES! If you absolutely must 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, orquiz when collaboration is forbidden.

SRSU Disability Services. 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 Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartze@sulross.edu Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, SUI Ross State University, Alpine. Texas, 79832.

Technical Support. SRSU 24/7 Blackboard Technical Support: Phone: 888.837.6055. Email: blackboardsupport@sulross.edu

SRSU Library Services. The Bryan Wildenthal Memorial Library 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 your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or by phone (432-837-8123).