

WEEK	DATE	Tues/Thurs 12:30 pm – 1:45 pm
1 online	Jan 12	Zoology & Ecological Perspective
	Jan 14	The Chemistry of Life (<i>not in text</i>)
2 online	Jan 19	Cells, Tissues, Organs
	Jan 21	Cell Division and Inheritance (Mitosis & Meiosis) <i>Student Introductions due</i>
3	Jan 26	DNA Structure, DNA Replication
	Jan 28	Protein Synthesis; <i>A#1 due</i>
4	Feb 02	Animal Taxonomy
	Feb 04	Cellular Respiration
5	Feb 09	Exam #1
	Feb 11	Evolution: History & Evidence
6	Feb 16	Evolution: Gene Frequencies
	Feb 18	Reproduction & Development
7	Feb 23	Poriferans & Cnidarians
	Feb 25	Platyhelminthes
8	Mar 02	Mollusks
	Mar 04	Annelids
9	Mar 08-12	SPRING BREAK -- NO CLASSES
10	Mar 16	Nematodes
	Mar 18	Arthropods
11	Mar 23	Comprehension Test #2
	Mar 25	Crustaceans
12	Mar 30	Hexapods
	Apr 01	Fishes
13	Apr 06	Fishes, cont.
	Apr 08	Amphibians; <i>A#2 due</i>
14	Apr 13	Reptiles
	Apr 15	Birds
15	Apr 20	Mammals
	Apr 22	Comprehension Test #3
16	Apr 27	LAST CLASS -- Wrap-up and Review
	Apr 29	SRSU STUDY DAY -- NO CLASSES
17	Final Exam Wednesday, May 5th, 10:15 AM -12:15 PM	

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.

ADA Statement: Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. Students with qualifying disabilities who seek accommodations must initiate a request for a meeting for accessibility services. Students seeking accessibility services must contact Rebecca Greathouse Wren, M.Ed., LPC-S, Counseling & Accessibility Services, Telephone: 432-837-8203, or email: rebecca.wren@sulross.edu. For more information see: <https://www.sulross.edu/page/1384/accessibility-services>

SRSU Library Services. The Sul Ross Library 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 phone (432-837-8123).

COVID-19. Sul Ross aims to do our part to prevent further spread of the novel coronavirus SARS-CoV-2. A mandatory campus-wide mask policy is in place, given the high level of contagion of this coronavirus and the implications of its disease COVID-19. Following guidelines from the Centers for Disease Control, face masks can be cloth and must cover your nose and mouth. Masks must be kept on during classes and within all public places in campus buildings at all times as part of this community-wide effort to prevent more spreading of COVID-19. Failure to do so will be treated as a class disruption, per the Student Handbook.

Educator Standards. For students seeking certification, this course will cover aspects of the following SBEC educator standards and competencies for Science EC-6 Standard IV:

Competency 002 (History and Nature of Science): *The teacher understands the history and nature of science, the process and role of scientific inquiry and the role of inquiry in science instruction.* A,J,M,N,P

Competency 003 (Impact of Science): *The teacher understands how science impacts the daily lives of students and interacts with and influences personal and societal decisions.* S,T,U

Competency 004 (Concepts and Processes): *The teacher knows and understands the unifying concepts and processes that are common to all sciences.* C,F,H

Competency 005 (Students as Learners and Science Instruction): *The teacher has theoretical and practical knowledge about teaching science and about how students learn science.* C,F,G,H

Competency 006 (Science Assessment): *The teacher knows the varied and appropriate assessments and assessment practices for monitoring science learning in laboratory, field and classroom settings.* B,C,D

Competency 011 (Structure and Function of Living Things): *The teacher understands the structure and function of living things.* H,I,J,L

Competency 012 (Reproduction and the Mechanisms of Heredity): *The teacher understands reproduction and the mechanisms of heredity.* A,B,C,E

Competency 013 (Adaptations and Evolution): *The teacher understands adaptations of organisms and the theory of evolution.* A,F,G

Competency 014 (Organisms and the Environment): *The teacher understands the relationships between organisms and the environment.* B,C,D,E,F