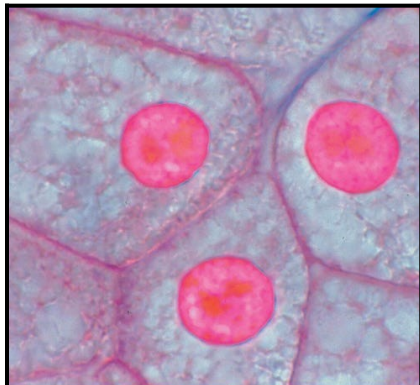


BIOL 1306 – Biology 1 for Majors Fall 2026 Syllabus

INSTRUCTOR AND COURSE DESCRIPTION



Instructor:	Dr. Thornton Larson
Office:	Online Only
Office Hours:	By Appointment
Office Phone:	432-837-8084
Email:	<u>Thornton.Larson@sulross.edu</u>
Lecture:	Asynchronous Online
Classroom:	Online

Course Description

This course is Part 1 of an overview of biology as a whole. This course will cover the foundational aspects of biology, including the makeup of basic biological components and what makes a living thing. Working from a standard biological perspective starts small, with elements growing into single-celled organisms and their structure, function, and ability to replicate and diversify. These concepts will directly feed into Biology II for Majors, where the discussion regarding more complex, multicellular organisms with cell specialization occurs.

This course will include concepts that include the molecular makeup of life, what a cell is, the basic structure and functions of cells, cellular respiration, photosynthesis, cellular metabolism and an introduction to cellular genetics and the proliferation of cells. These form the basis of understanding how structure and function relate in living things, leading to the diversity of life at micro levels that can be applied later on to more macro-level concepts and scientific questions.

This course will introduce the scientific method and modern research papers to promote scientific literacy early in the curriculum to create scientists able to follow scientific protocols and understand the purpose of experimentation. From these basic steppingstones, we will develop fully independent and objective biologists able to function within laboratories and in natural field work by the end of the program in biology.

Required Materials

Textbook will be Openstax Biology 2e at <https://openstax.org/details/books/biology-2e>

Lab portions will be run through the program Science Interactive, you will receive a code for a kit in the Lab Shell for this course. The first several weeks of lab are all online, but eventually you will use the kit ordered with the software.

Exams and Grading

Lecture and Lab are separate courses and therefore have separate grades make sure you are enrolled into the lab section as well if you need that as part of your course load.

Lecture:

5	lecture exams (lowest test grade is dropped of first 4)	50%
2	Summary Papers	10%
21	Daily Quizzes	10%
20	Activities	20%
5	Unit Discussion Boards	10%

A 90 – 100% B 80 – 89% C 70 – 79% D 60 – 69% F <60%

COURSE OBJECTIVES, LEARNING OUTCOMES, MARKETABLE SKILLS, POLICIES, AND UNIVERSITY SERVICES

Course Objectives: At the end of the semester, students will:

1. Understand the Origin of Life
2. Explain the different classifications of organisms and their differences
3. Demonstrate basic steps of the evolutionary process through organismal classification
4. Demonstrate basic ideas of Ecology, Populations, and Conservation
5. Recognize the scope of understanding presented in biology and how one can relate ideas from a single organism to a functional Ecosystem to Biosphere.

Student Learning Outcomes (SLOs) for Biology:

1. Demonstrate an understanding of evolution by natural selection.
2. Demonstrate an integration of environmental awareness into everyday modern life.
3. Understanding how to incorporate molecular biology into the study of the whole organism.
4. Demonstrate utilization of various field techniques toward addressing scientific questions in the discipline.
5. Conduct basic laboratory experiments utilizing standard observational strategies.

Marketable Skills

1. Ability to organize, analyze, and interpret data.
2. Proficiency in using presentation software.
3. Experience in managing time and meeting deadlines.
4. Ability to speak effectively and write concisely about scientific topics.
5. Experience in the development of professional email correspondence.

Asynchronous setup and expectations:

Since this course is delivered in an asynchronous format that means it is on you as the student to interact with all of the provided material. The list of videos meant to take the place of a normal lecture have been carefully curated to provide coverage of most of the information from the textbook we are using, OpenStax Biology 2e. Like a normal lecture course, all material cannot be covered within the bounds of time for a lecture so it is imperative that you read the textbook as well as view the videos

The videos have been chosen and arranged in a way that they mostly follow the chapter they are associated with, though there are exceptions. It has also been created in a way that may be ideal for an asynchronous user, where the videos are usually in increments of 5 to 10 minutes each with approximately 7-8 videos a chapter (sometimes a little more). In this way you can approach each chapter at a pace for which your schedule allows.

Regarding Deadlines of Lectures and Assignments:

Please carefully consider the deadlines of lectures and assignments. All course materials will open the Saturday of the week assigned on the syllabus. For example Class 3 that starts the week of 8/31 will be accessible on Saturday 8/29. This allows early access for those whose schedules may shift or those that like to keep ahead of material.

Assignment deadlines will be adhered to strictly. Each assignment will have expected turn in and response dates. Failure to meet those dates will result in a grade of '0', the only exception to this is the Summary assignment where the late work policy is followed strictly. Most regular assignments will be due the Sunday of the week of the assignment. For example, class 3 week of 8/31 assignments are due Sunday 9/6 by 11:59 PM.

Time Commitment Expectations:

Note – This outline is subject to change. The exams will be administered on the dates given unless material relevant for a given exam has not been covered.

STUDYING: As a general rule, students should spend 2-3 hours studying for every 1 hour of lecture material. So, for this class, you need to allocate approximately 6-9 hours per week to study the lecture material outside of the planned lecture time.

I have designed the Blackboard to open in this way but completing the readings is technically required **before** accessing the lecture videos so, **I HIGHLY RECOMMEND READING BEFORE LECTURE**. The technical set up is a video introducing that day's concept and chapter, followed by a link to the text chapter, then followed by the videos in specified order. You need to access things in order in order for them to be open for you. This means you can not access the activities and the quizzes without first going through the videos You have been given the schedule with all chapters and assignment deadlines on the calendar at the end of this syllabus please review it and follow proper steps on Blackboard. I recommend reading your notes in conjunction with reviewing the relevant textbook chapters. Studying is most effective

shortly after the lecture, rather than all at once the night before the exam. Look up anything you do not understand, or consult your instructor.

Summary Papers:

More specific instructions on summary papers will be provided on Blackboard. The purpose of these assignments is for you to read current research in biological science and start to familiarize yourself with peer-reviewed scientific journal articles. When I announce the assignments, you will have one week to submit the paper you plan to review to me, upon which I will state if A) it is a research paper (many students still at this stage in their education are unfamiliar with what constitutes a peer-reviewed research paper and that is okay, we want you to learn), B) if the paper is something that I think you are able to understand in a thorough enough manner to review it. If you choose not to check the paper with me and it is not a peer-reviewed research paper, you will lose significant points on the assignment.

Exams-

Exams are given on Blackboard with Respondus Lockdown browse and will consist of 50 questions. Exams are mix of matching, multiple guess, and true/false. There will be no rounding of grades, or curves given. Your grade is your grade earned. If you would like to review your exam, please make time available during office hours to review.

The Exams are scheduled for specific days and will be open at 5 AM on the day of the exam and close at 11:59 PM on the day of the exam. You will have an hour and 15 minutes to take the exam. If you do not finish within the specified time including if you start too close to the ending time you will get locked out of the exam. There are no makeup exams but recall the lowest test grade will be dropped of the first 4 exams, you cannot elect to drop the final even though it is not a cumulative final.

Late Work Policy (For Summary Papers Only):

Late work is frowned upon for assignments to be turned in. All assignments will be due turned in to the appropriate assignment section (Blackboard or other online program) by the assignment deadline. After this time, you will lose 10% on the assignment. After 24–48 hours late it will be 20% off, and 48–72 hours late it will be 30% off. Beyond 72 hours it will be a '0' on the assignment. These terms are meant to respect both timeliness and flexibility of deadlines and will be upheld.

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).

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 Schwartz Grisham, 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.

Academic Integrity:

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as 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. Students should also avoid using open AI sources **unless permission is expressly given** for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

I will reiterate here that I take academic dishonesty and plagiarism very seriously. Citations are your friend. There is a difference between knowingly being dishonest with what is your work and mistakes through learning.

University AI Policy

The University does not recommend or endorse any specific AI tools or resources. Students should be aware that many generative AI tools (e.g., ChatGPT, Google Gemini, Microsoft Copilot) store user input and may use this data to train future models. For this reason, students should never upload or share personal, confidential, or identifiable information—such as names, ID numbers, health data, or assignment submissions containing such details—into any generative AI platform. When using AI tools, students should verify whether the tool complies with student privacy standards as indicated by the University. Faculty may recommend specific tools that better align with institutional data privacy policies, but ultimate responsibility for data protection rests with users. Students are encouraged to use faculty-recommended platforms when engaging in coursework involving generative AI. The University is not liable for any adverse experience or impact when students interact with these tools.

Specific AI policy for course work

We recognizes the uses of AI Learning Language Models and does try to encourage the use of them in class spaces. However, many students have utilized AI to complete entire assignments for them or used AI resources to heavily edit their writing to the point that student contribution to the assignment cannot be measured and therefore gets awarded a **score of '0'**. For the purposes of this class do not use any form of AI to correct your grammar or sentence structure: this includes some of the more advanced functions in google docs and word as well as use of Grammarly. If you are unsure at the appropriateness of AI use for a particular assignment either

confirm with Dr. Larson or err on the side of not using such a tool. The goal of the assignments is typically to improve upon skills such as scientific writing and demonstration of understanding, so do not use AI tools unless you have confirmed use to use them for the safety of your own grade.

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.

Required Student Responsibilities Statement

All full-time and part-time students are responsible for familiarizing themselves with the Student Handbook and the Undergraduate & Graduate Catalog and for abiding by the University rules and regulations. Additionally, students are responsible for checking their Sul Ross email as an official form of communication from the university. Every student is expected to obey all federal, state and local laws and is expected to familiarize themselves with the requirements of such laws.

For Remote/Online Courses Only - 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.

Tutoring Center

The Lobo Den Tutoring Center offers FREE tutoring support to help you excel in your courses. Whether you need assistance in Writing, Math, Science, or other subjects, we're here to help!

Important Information:

Drop-in and Scheduled Appointments: Flexible options to fit your needs.

Hours of Operation: Monday–Friday, 8:00 AM – 5:00 PM.

Workshops: Attend our regularly hosted academic workshops on STEM topics and professional development, often in collaboration with specialized faculty.

Location: BWML Room 128.

Contact Us: For more information or to book an appointment, email tutoring@sulross.edu or call (432) 837-8726.

Looking for additional support?

Tutor.com offers FREE 24/7 online tutoring in over 200 subjects, including specialized support for ESL and ELL learners with native Spanish-speaking tutors.

Access Tutor.com via Blackboard: Log in to your Blackboard account to get started anytime, anywhere.

Take advantage of these valuable resources to boost your confidence and performance in your classes. We look forward to helping you succeed!

TENTATIVE LECTURE SCHEDULE

NOTE: THERE ARE 2 CLASSES EXPECTED TO BE COMPLETED MOST WEEKS

EXAMS HAVE SPECIFIC TIMES THEY ARE OPEN TO TAKE REGARD CAREFULLY

Class	Week	Subject/Chapter	Assignment Deadlines
Class 1	8/24	Introduction to Course	Syllabus Quiz (due 8/30)
Class 2	8/24	Chapter 1 Study of Life	Quiz (due 8/30), Activity (due 8/30), Discussion 1 (due 9/3, 9/15)
Class 3	8/31	Chapter 2 Chemical Context of Life, Part 1	Quiz (due 9/6), Activity (due 9/6)
Class 4	8/31	Chapter 2 Chemical Context of Life, Part 2	Quiz (due 9/6), Activity (due 9/6)
Class 5	9/7	Chapter 3 Macromolecules	Quiz (due 9/13), Activity (due 9/13)
Class 6	9/14	Exam 1	Open from 9/14 5:00 AM-9/15 11:59 PM
Class 7	9/14	Chapter 4 Cell Structure	Quiz (due 9/20), Activity (due 9/20), Discussion 2 (due 9/22, 9/29)
Class 8	9/21	Chapter 5 Plasma Membranes, structures, and functions	Quiz (due 9/27), Activity (due 9/27)
Class 9	9/21	Chapter 6 Cellular Metabolism: How Cells Function	Quiz (due 9/27), Activity (due 9/27), Summary 1 (due 10/11)
Class 10	9/28	Exam 2	Open from 9/28 5:00 AM-9/29 11:59 PM
Class 11	9/28	Chapter 7 Cellular Respiration, Part 1	Quiz (due 10/4), Activity (due 10/4), Discussion 3 (due 10/7, 10/15)
Class 12	10/5	Chapter 7 Cellular Respiration, Part 2	Quiz (due 10/11), Activity (due 10/11)
Class 13	10/5	Chapter 8 Photosynthesis	Quiz (due 10/11),

			Activity (due 10/11)
Class 14	10/12	Chapter 9 Cell Communication and Signaling	Quiz (due 10/15), Activity (due 10/15)
Class 15	10/12	Exam 3	Open from 10/14 5:00 AM-10/15 11:59 PM
Class 16	10/19	Chapter 10 Reproduction	Quiz (due 10/27), Activity (due 10/27), Discussion 4 (due 10/30, 11/3)
Class 17	10/19	Chapter 11 Meiosis and Sexual Reproduction	Quiz (due 10/27), Activity (due 10/27), Summary (due 11/8)
Class 18	10/28	Chapter 12 Mendelian Genetics and Heredity	Quiz (due 11/1), Activity (due 11/1)
Class 19	10/28	Chapter 13 Modern Genetics and Inheritance	Quiz (due 11/1), Activity (due 11/1)
Class 20	11/2	Exam 4	Open from 11/2 5:00 AM-11/3 11:59 PM
Class 21	11/2	Chapter 14 DNA	Quiz (due 11/8), Activity (due 11/8), Discussion 5 (due 11/18, 12/4)
Class 22	11/9	Chapter 15 Genes and Proteins	Quiz (due 11/15), Activity (due 11/15)
Class 23	11/9	Chapter 16 Gene Expression	Quiz (due 11/15), Activity (due 11/15)
Class 24	11/16	Chapter 17 Biotechnology and Genomes	Quiz (due 11/29), Activity (due 11/29)
Class 25	11/30	Review	
Class 26	12/7	Exam 5 (Final Exam)	Open from 12/7 5:00 AM-12/8 11:59 PM