

**Face coverings are required in class and in lab.**

## **Biology 1311 General Botany (3 credits)**

**Fall 2020 Sul Ross State University**

**Instructor:** Anne Marie Hilscher  
**Lecture:** Tues/Thurs 11:00am-12:15pm WSB 201  
**Office:** WSB 314A  
**Office Hours:** Virtual Tues/Thurs 9:30am-10:30am, and by appt.  
**Email:** [ahilscher@sulross.edu](mailto:ahilscher@sulross.edu) (Type **Biology 1311** in subject line)

### **LECTURE TEXTBOOK (OPTIONAL, NOT REQUIRED).**

Raven, Evert, & Eichhorn, *Biology of Plants*, 8<sup>th</sup> Edition, or any other ed.

**COURSE SUMMARY.** General Botany provides a general survey of the plant kingdom while considering the fundamentals of biological facts as they apply to plants. Structure and functions of plant organs, as well as basic plant taxonomy, will be covered.

### **LEARNING OBJECTIVES FOR THIS COURSE.**

- Understand the role of key figures and events in the history of biological science.
- Understand principles of classification, including distinguishing major plant groups (monocots & eudicots)
- Recognize major cell structures and their function.
- Understand the processes of plant reproduction and principles of genetics.
- Explain basic scientific concepts associated with physiological plant processes (photosynthesis & respiration).
- Understand the role of DNA and RNA in the process of protein synthesis.
- Understand the structure and function of plant parts (leaves, stem, roots, and flowers).
- Understand the effects humans have on the environment.

**EXAMS & ASSIGNMENTS.** Three lecture exams, five quizzes/assignments, and one final exam will be administered. **\*\*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.\*\*** Quizzes cannot be made up. More than five quizzes may be administered, but the lowest score will be dropped.

<b>GRADING.</b>	Student Introductions	10 (online)
	Group Assignments (2 @ 30 pts each)	60 (online)
	Three Lecture Exams (3 @ 100 pts each)	300
	Quizzes (5 @ 20 points each)	100
	<u>Final Exam (Comprehensive)</u>	<u>125</u>
	<b>TOTAL COURSE POINTS</b>	<b>595</b>

**Attendance.** Missing any exam will notifying me in advance will result in a zero for that exam grade—no exceptions. You must notify me before the exam. You will have five 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.

### TENTATIVE LECTURE OUTLINE

<i>Date</i>	<i>Topic</i>	<i>Chapter</i>
Aug 25	Botany: An Introduction	1
Aug 27	Molecular Composition of Plants Cells	2
Sep 01	The Plant Cell and the Cell Cycle; <b>Student Intro due</b>	3
Sep 03	The Plant Cell and the Cell Cycle, cont.	3
Sep 08	Carnivorous Plants	<i>not in text</i>
Sep 10	Plants and People	21
Sep 15	DNA Structure and DNA Replication	9
Sep 17	Protein Synthesis; <b>Group Assignment 1 due</b>	9
<b>Sep 22</b>	<b>EXAM #1</b>	
Sep 24	Sexual Reproduction and Heredity	8
Sep 29	Systematics and Taxonomy	12
Oct 01	Cells and Tissues of the Plant Body	23
Oct 06	The Root: Structure and Development	24
Oct 08	The Shoot: Stems and Leaves	25
Oct 13	Secondary Growth in Stems	26
Oct 15	Respiration	6
<b>Oct 20</b>	<b>EXAM #2</b>	
Oct 22	Photosynthesis	7
Oct 27	The Process of Evolution	11
Oct 29	Nonvascular Plants	16
Nov 03	Seedless Vascular Plants	17
Nov 05	Gymnosperms	18
Nov 10	Angiosperms	19, 20
Nov 12	Angiosperms; <b>Group Assignment 2 due</b>	19, 20
<b>Nov 17</b>	<b>EXAM #3</b>	
Nov 19	Current Topic in Botany	<i>not in text</i>
Nov 24	Current Topic in Botany, cont. (online)	<i>not in text</i>
<b>Nov 26-27</b>	<b>No classes—Thanksgiving Holidays</b>	
Dec 01	Online Wrap-up and Review	
<b>Dec 03</b>	<b>No classes—Study Day</b>	
<b>Dec _____</b>	<b>ONLINE FINAL EXAM @ _____</b>	

#### 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:**

- Teamwork
- Communication
- Critical Thinking Skills
- Empirical and Quantitative Skills
- Social Responsibility
- Personal Responsibility

**ADA (Americans with Disabilities Act)** 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. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, 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 [rebecca.wren@sulross.edu](mailto:rebecca.wren@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, Sul Ross State University, Alpine, Texas, 79832.

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**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.