

Biology 1311 W01 General Botany (3 credits) **Summer I 2020 Sul Ross State University**

Instructor: Ms. Anne Marie Hilscher **Office:** Virtual on Blackboard
Lecture: Web-based **Live Office Hours:** Mon-Thurs 1:00-2:00 & by appt.
Email: ahilscher@sulross.edu (Biology 1311 in subject line) *Make sure my email is spelled correctly.*

TEXTBOOKS.

Lecture: Raven, Evert, & Eichhorn, *Biology of Plants*, 8th Edition, or any other ed. **(Optional)**
Lab: *Discover the Chihuahuan Desert: General Botany. A Laboratory Manual for Biology 1111*, 2nd Edition by J. Zech and A. Michael Powell. **(Required. Accessible from SRSU Bookstore and in your Blackboard Lab Section)**

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.

**To participate in this web-based course, you need the following:

- A computer capable of running Windows 7 or later, or Mac OSX 10.8 or later
- The latest version of a web browser (Chrome recommended)
- Adobe Acrobat Reader
- High Speed Internet Access and ability to access websites
- Webcam for virtual meetings and discussions
- Proficiency with PowerPoint

EXAMS & ASSIGNMENTS: A total of three exams and five assignments will be given. If you have a valid excuse to miss an exam/assignment, you must contact me in **advance** and you have no more than two days to make it up. Failure to do so will result in a zero – no exceptions. Due dates will be posted, so it is your responsibility to participate and complete tests and assignments on time.

GRADING.	Three Lecture Exams (3 @ 100 pts ea)	300
	Required email exercise	20
	<u>Assignments #1 - #5 (20 pts ea)</u>	<u>100</u>
	TOTAL COURSE POINTS	420

BIOLOGY PROGRAM'S STUDENT LEARNING OUTCOMES (SLOs):

- 1) Demonstrate an understanding of evolution.
- 2) Demonstrate an integration of environmental awareness into everyday modern life.
- 3) Understand 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.

COURSE OBJECTIVES:

- Understand the role of key figures and events in the history of biological science.
- Understand principles of classification, including distinguishing major plant groups.
- 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.
- 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.

THIS IS A TENTATIVE LECTURE OUTLINE (and is subject to change).

DATE	TOPIC	CHAPTER
May 20-22	Introduction to Botany	1
	Composition of Plant Cells	2
	The Plant Cell and Mitosis	3
	<i>Email exercise & A#1 due</i>	
May 25-29	Plants and People	21
	DNA Structure and DNA Replication	9
	Protein Synthesis	9
	EXAM #1; A#2 due	
June 01-05	Sexual Reproduction and Heredity	8
	Systematics and Taxonomy	12
	Plant Cells and Tissues	23
	Primary Growth: Roots	24
	<i>A#3 due</i>	
June 08-12	The Shoot: Stems and Leaves	25
	Secondary Growth: Stems	26
	EXAM #2; A#4 due	
June 15-19	Photosynthesis; <i>A3 due</i>	7
	The Process of Evolution	11
	Nonvascular Plants	16
	Seedless Vascular Plants	17
	<i>A#5 due</i>	
June 22-26	Gymnosperms	18
	Angiosperms	19
	EXAM #3	

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.

CORE OBJECTIVES ADDRESSED:

- Team Work
- Communication
- Critical Thinking Skills
- Empirical and Quantitative Skills
- Social Responsibility
- Personal Responsibility

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 information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. 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.

Sul Ross State University is committed to equal access in compliance with the Americans With Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-171, Sul Ross State University, Alpine, Texas 79832. 432-837-8203