

**SUL ROSS STATE UNIVERSITY - GENERAL BOTANY 1311 - SPRING SEMESTER 2019**

**Professor:** Jim Zech  
 Office: 218 Warnock Science Building  
 Phone: 837-8114  
**e-mail:** jzech@sulross.edu  
**Office Hours:** By appointment or TTH: 9:30 – 11:00 a.m.; W: 9:30 – 11:00 a.m., 1:00 – 2:00 p.m.

**Time and Place:** Lecture: MW: 11:00 A.M. - 12:15 P.M.; 201 WSB

**Text:** Biology of Plants, 8th Ed.; Raven, Evert, and Eichhorn  
 If You're Taking the Lab, BIOL 1111: Discover the Chihuahuan Desert: General Botany. A Laboratory Manual for Biology 1401, 3<sup>rd</sup> Ed.; James C. Zech and A. Michael Powell

**Tentative Class Schedule and Reading Assignments:**

WEEK	DATE	LECTURE TOPICS	CHAPTERS	PAGES
1	1/21 1/23	MLK – NO CLASS Introduction	1	--- 1-15
2	1/28 1/30	Subdisciplines Building Blocks	1 2	10-11 18-30
3	2/4 2/6	Cells Cell Cycle: Mitosis	3 3	38-62 62-71
4	2/11 2/13	DNA: Structure; DNA: Replication Protein Synthesis	9 9	174-178 179-185
5	2/18 2/20	Primary Growth: Tissues <b>FIRST EXAM</b>	23; 25	538-557; 579-583 ---
6	2/25 2/27	Primary Growth: Roots Primary Growth: Stems	24 25	558-578 583-590
7	3/4 3/6	Primary Growth: Leaves Secondary Growth: Stems	25 26	590-599 614-635
8	3/11 3/13	Photosynthesis Aerobic Respiration	7 6	122-149 107-119
9	3/18 3/20	<b>SPRING BREAK</b> <b>SPRING BREAK</b>		
10	3/25 3/27	Transport: Diffusion; Translocation <b>SECOND EXAM</b>	4; 30	75-85; 722-727 ---
11	4/1 4/3	Taxonomy Alternation of Generations	12 12	234-250 250-254
12	4/8 4/10 <b>W</b> 4/12	Alt. of Gen.: Details Meiosis; Homosporous/Heterosporous <b>LAST DAY TO DROP WITH W</b>	17 8; 17	397 155-172; 397-398
13	4/15 4/17	Nonvasc. Plts: Bryophytes; Moss Lf Cycle Seedless Vascular Plants	16 17	366-390 391-429
14	4/22 4/24	Fern Allies: Life Cycle <b>THIRD EXAM</b>	17	406-407; 410-411; 426-427 ---
15	4/29 5/1	Vasc. Seed Plts: Gymnos; Pine Lf Cycle Vasc. Seed Plts: Angiosperms	18 19	430-455 457-459
16	5/6 5/8	Angiosperms: Flowers; M & EuD; Lf Cycle Angiosperms: Flowers; M & EuD; Lf Cycle	19; 20 19; 20	460-465; 465-476; 487-496 460-465; 465-476; 487-496
17	5/14 (Tuesday)	<b>FINAL EXAM (10:15 - 12:15 P.M.)</b>		

Lf = Life; Gymnos = Gymnosperms; EuD = EuDicot; M = Monocot; Vasc = Vascular; Plts = Plants

**POINT DISTRIBUTION:**

Examinations:  
 First, Second, Third Exams @ 100 = 300  
 Final (Selectively Comprehensive) = 150  
 Literature Reviews (**NOT ACCEPTED LATE**): 2 @ 50 points each = 100

**TOTAL POINTS CLASS: = 550**

## GRADING:

Your final grade in General Botany will be determined by the total points you receive divided by the total points possible and the scale listed below. There will be no deviation from this scale. I will also be determining a subjective grade. This will be determined by my evaluation of your attendance, participation, and attitude. The subjective grade will influence your final grade in the course, especially in borderline cases.

Grading Scale (percent of total points): A: 90-100; B: 80-89; C: 70-79; D: 60-69; F: 59 and lower

---

## RULES TO LIVE BY:

This lecture has been scheduled for 75 minutes. You should plan to be here for the **ENTIRE** time block. I will start at the hour, plan to be on time. Please sit towards the front. Bring your text to class and read any applying material before coming to class. Keep the classroom clean. No tobacco, eating, **CHEATING** (University Policy), **weapons**, headphones, **NO CELL PHONES, SLEEPING, PHOTOS, FEET ON FURNITURE**, etc. **Number One Source. Balance.**

---

## ABSENCES:

**MY BEST ADVICE IS DON'T BE.** Regular attendance is expected and required to pass the course. If you must miss class see me **BEFORE** class or inform me **BEFORE** class so other arrangements can be made. I will not give make-up quizzes or exams unless I am contacted **BEFORE** the absence and/or presented with a written valid medical excuse or documentation of other valid reasons such as sickness or death in the family. Quizzes and exams must be made up within **1 week** of their originally scheduled date.

---

## STUDENT LEARNING OUTCOMES:

SLO1 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.

SLO2 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.

SLO3 The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.

SLO4 The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

---

## CORE OBJECTIVES ADDRESSED:

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

## OBJECTIVES OF THIS COURSE:

- Understand the role of key figures and events in the history of biological science.
  - Understand terminology relevant to biological laboratory and field work.
  - Explore the applications of scientific skills and knowledge to daily living.
  - Understand principles of classification.
  - Recognize major cell structures and their function.
  - Analyze cell division and reproduction.
  - Understand respiration and photosynthesis.
  - Understand the role of DNA and RNA in the process of protein synthesis.
  - Understand genes, and chromosomes.
  - Analyze characteristics of mosses, and ferns.
  - Analyze characteristics of gymnosperms and angiosperms.
  - Analyze characteristics of roots, stems, and leaves.
  - Understand mechanisms of plant reproduction.
  - Understand the effects humans have on the environment.
- 

## TEA AFNR EDUCATOR STANDARDS:

The teacher understands:

- Basic plant classification, morphology, physiology, and genetics, and
  - Horticulture, floriculture, and hydroponics.
- 

## DISABILITIES INFORMATION:

Qualified students with disabilities needing academic or other accommodations to ensure full participation in the programs, services and activities at SRSU should contact Counseling and Accessibility Services, 112 Ferguson Hall, Box C-122, 432-837-8203.