

SUL ROSS STATE UNIVERSITY - PLANT MORPHOLOGY - 4408 - FALL SEMESTER 2016

Professor: Jim Zech; Office: 218 Warnock Science Building
 Phone: 837-8114; e-mail: jzech@sulross.edu
 Office Hours: By appointment or T: 9:00-11:00 A.M.; MWF: 8:00-9:00 A.M.
 Time and Place: Lecture: MWF: 10:00 - 10:50 A.M.; 101 WSB; Lab: M: 3:00 - 4:50 P.M.; 206 WSB; MC: TBA
 Text: Morph and Evol of Vasc Plts, Gifford and Foster, 3rd Ed - Optional
 Various Papers: Not Optional

TENTATIVE CLASS SCHEDULE:

WEEK	DATE	LECTURE TOPICS	LAB:
1	8/22	Introduction	No Lab this Week
	8/24	Definitions	
	8/26	Schools	
2	8/29	Schools	No Lab this Week.
	8/31	Homology	
	9/2	Homology	
3	9/5	LABOR DAY	No Lab this Week.
	9/7	Terms	
	9/9	Terms	
4	9/12	Sporangia	Shapes, Shapes, Shapes
	9/14	Sporangia	
	9/16	Gametangia	
5	9/19	Gametangia	Scopes; Alternation of Generations
	9/21	Alternation of Gen.	
	9/23	Alternation of Gen.	
6	9/26	Early Land Plts; Terms	Bryophytes
	9/28	Early Land Plts; Terms	
	9/30	Bryophytes	
7	10/3	Bryophytes	Surfaces
	10/5	Rhyn, Zost, & Trim	
	10/7	Rhyn, Zost, & Trim	
8	10/10	Early Lycopods	Fossils
	10/12	Early Lycopods	
	10/14	Lycophyta	
9	10/17	Lycophyta	Steles
	10/19	Sphenophyta	
	10/21	Sphenophyta	
10	10/24	Psilophyta	Fern Allies
	10/26	Filicopyta: Eu. and Lept	
	10/28	Filicopyta: Eu. and Lept.	
11	10/31	Monilophyta	Ferns
	11/2	Progymnospermophyta	
	11/4	Pteridospermophyta	
12	11/7	Pteridospermophyta	Cycads, Gnets, and Ginkgo
	11/9	Cycadeoidophyta	
	11/11	SABOT: Morphology Scavenger Hunt	
	11/12	SABOT: Morphology Scavenger Hunt	
13	11/14	Cycadeoidophyta	Conifers
	11/16	Cycadophyta	
	11/18	Cycadophyta	
14	11/21	Ginkgophyta	Lab Exam Review
	11/23	THANKSGIVING - NO CLASSES	
	11/25	THANKSGIVING - NO CLASSES	
15	11/28	Pinophyta	Lab Exam
	11/30	Gnetophyta; <i>Ephedra</i> & Dble Fert Papers	
	12/2	FINAL EXAMS BEGIN - NO CLASSES	
16	12/2	FINAL EXAM (10:15 A.M. - 12:15 P.M.)	

IMPORTANT DATES:

SEPT 5 (MON) - LABOR DAY; NOV 11 (FRI) - LAST DAY TO DROP WITH A W; NOV 11-12 (FRI - SAT) - SAN ANTONIO BOTANIC GARDEN; NOV 23-25 (WED - FRI) - THANKSGIVING BREAK; NOV 30 (WED) - LAST CLASS DAY; DEC 2 (FRI) - FINAL EXAM (10:15 a.m.)

POINT DISTRIBUTION:

Lecture Examinations (Take-Home):	
First Midterm	100
Second Midterm	100
Final (Selectively Comprehensive)	150
Lab Practical:	100
SABG Project:	100
Extinct/Extant Presentation:	50
Fern Fun Facts	50
Cycad Fun Facts	50
Literature Review:	100 (Grad)
TOTAL POINTS CLASS:	700/800 (Grad)

GRADING:

Your final grade in Plant Morphology will be determined by the total points you receive divided by the total points possible and the scale listed below, with 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 & lower

RULES TO LIVE BY:

This lecture has been scheduled for 50 minutes and the lab for approx. 2 hrs. You should plan to be here for the **ENTIRE** time block. I will start at the hour, plan to be on time. Bring your texts to class and read any applying material before coming to class. Keep the classroom clean. No tobacco, eating, cheating, sleeping, **CELL PHONES**, feet on the furniture, etc. Always handle microscopes, prepared slides, and demonstration material with care.

- Exams are to be completed individually - **NO GROUP EFFORT**.
- Presentations are to be made using power point (LARGE BLOCK FONT).
- We will be reading several papers and discussing them during class. **PLEASE** read **ALL** papers assigned and be ready to contribute to the discussion.
- All assignments must be typed: exams; literature reviews; etc.
- **CHOICES; FIND THE 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 exams unless I am contacted **BEFORE** the absence. Exams must be made up within 1 week of their originally scheduled date. Because of its complicated nature and the time involved in putting it together, the final lab practical must be taken on the date scheduled with no make-up available (SRSU).

FOR GRADUATE CREDIT ONLY:

1. LITERATURE REVIEW:

Review 10 current (within the last year) journal articles which cover some morphological aspect of the Bryophytes, Fern Allies, Ferns, or Gymnosperms (Angiosperms do not qualify). The articles must be from at least two different volumes of at least two separate journals. Suggested sources: *American Journal of Botany*, *Madroño*, and *Systematic Botany*. For each article be sure to include: (1) a proper citation; (2) a summary; and (3) your impression.

STUDENT LEARNING OUTCOMES:

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

COURSE OBJECTIVES:

- Students shall be able to define Plant Morphology according to both the German and United States schools;
- Students will be able to discriminate between a homosporous and heterosporous life cycle, as well as be able to construct examples of both;
- Students are expected to evaluate the nonvascular plants and identify trends within the group, and more importantly connections with the vascular plants;
- Students are expected to compare and contrast various groups of vascular plants, recognizing developmental trends within and among groups; and
- Students are expected to summarize evolutionary trends among the plant groups studied.

DISTANCE EDUCATION STATEMENT: Students enrolled in distance education courses have equal access to the university's academic support services, library resources, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should submit online assignments through Blackboard or SRSU email (*e-mail for Plant Morph*), which require 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 webpage.

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.