

BSC 226: GENERAL BOTANY (Fall 2009)

**University of Southern Mississippi
MWF 9:00–9:50 A.M., Johnson Science Tower 214**

Instructor

Dr. Mac H. Alford

Johnson Science Tower 308

Campus Box #5018

Telephone: 601-266-6531

E-mail: mac.alford@usm.edu

Website: http://www.usm.edu/biology/faculty/Faculty_Profile_Mac_Alford.htm

Office Hours

(a) Fridays, 10–11 A.M.

(b) By appointment

Course Description

Lecture. 3 hrs. Systematics, structure, physiology, growth, and development of plants. Prerequisites: BSC 110/L, 111/L. Corequisite: BSC 226/L, General Botany Laboratory.

Course Objectives

Students will develop and demonstrate knowledge and understanding of the:

- Methods, basic data, and scope of botany,
- Evolutionary history and classification of the “protists,” fungi, and plants,
- Ecological function and importance of “protists,” fungi, and plants,
- The growth, development, and function of “protists,” fungi, and plants and their associated structures,
- Economic uses of “protists,” fungi, and plants, and
- Contemporary issues and concerns in botany.

Required Text

Raven, P. H., R. F. Evert, S. E. Eichhorn. 2005. *Biology of Plants*. 7th ed. New York: W. H. Freeman and Company Publishers.

Class Procedures and Requirements

Attendance of the lecture is expected. The indicated chapter(s) in the book should be read *before* class, which will prepare you for the material presented in lecture. The exams will principally include material covered in lecture, but some questions may come from the relevant reading assignments. Lecture will include some material not present in the textbook.

Professionalism

Disrespect of the professor and/or students will not be tolerated. Be prompt to class, and if you must leave early, please sit near the rear of the classroom. Questions are encouraged; please raise your hand to be recognized. The use of cellular phones, pagers, and other such electronic devices is prohibited. Computers may be used for note-taking, but disruptive behavior (surfing the web, typing loudly, etc.) will not be tolerated.

Evaluation Criteria

Exam 1	20%	(100 points)
Exam 2	20%	(100 points)
Exam 3	20%	(100 points)
Final Exam	20%	(100 points)
Essays (4)	20%	(100 points)
Extra-Credit	5%	(25 points)

Grading Scale

90–100%	A	(450–500 points)
80–89%	B	(400–449 points)
70–79%	C	(350–399 points)
60–69%	D	(300–349 points)
0–59%	F	(0–299 points)

Make-Up Exams and Late Assignments

Make-up exams are given **only** if an official University excuse or written corroboration of a disabling condition or situation is provided (doctor's note, parental note [with phone number] about funeral, police report). Contact professor immediately in person or by telephone about re-scheduling. *Re-scheduling after 96 hours is not possible, and a score of zero will be recorded.* The grade for essay assignments will be deducted 10% for each 24-hour period that the assignment is late.

Essays

You will be given four articles about recent developments in botanical research. You will write a two-page (1.5-2.5 pp., double-spaced, 12-point font) summary and analysis for each, relating the article to what you have learned in class. Your essay will be peer-graded and returned to you, and then a final copy will be submitted to the professor one week after the due date.

Extra-Credit

Why wait for you to ask? Here's your task. You may watch three (any three you choose) of the videos from the *Private Life of Plants* series and write a three-page essay (2.5-3.5 pp., double-spaced, 12-point font), summarizing what you learned and what you found most interesting. The videos are on reserve in the library. Each video lasts about 50 minutes.

Academic Honesty (directly from the *Undergraduate Bulletin*)

"When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, and/or expulsion. Students on disciplinary suspension may not enroll in any courses offered by the University of Southern Mississippi." My policy is to fail the student for the course. *Plagiarism also constitutes cheating, as you are presenting someone else's work as your own.*

ADA Policy

If a student has a disability that qualifies under the Americans with Disabilities Act and requires accommodations, he should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by the ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies. Mailing address: 118 College Drive #8586, Hattiesburg, MS 39406-0001; Telephone: 601-266-5024; TTY: 601-266-6837; Fax: 601-266-6035.

Class Schedule*

Date	Topic	Reading Assignment (chapter)
August 19	Introduction to Botany	
21	Botany	1
24	Systematics	12
26	Systematics	
28	Fungi	14 (260--285)
	Last day to register for this class	
31	Fungi	
September 2	Lichens	14 (285–295)
4	“Protists,” <i>Euglena</i> , Dinoflagellates	15 (296–309)
7	Labor Day Holiday no lecture	
9	Oomycetes, Slime Molds, Diatoms, Brown Algae, and Red Algae	15 (309–327, 340–344)
11	Green Algae	15 (327–340) Essay 1 due
14	Liverworts and Hornworts	16 (345–358)
16	Mosses	16 (358–367)
18	EXAM 1	
21	Fossils and Lycopods	17 (368–389)
23	Horsetails and Ferns	17 (389–407)
25	Seeds and Conifers	18 (408–427)
28	Cycads, Ginkgo, and Gnetales	18 (427–433) Essay 2 due
	Yom Kippur	
30	Angiosperms, the Flower, and the Fruit	19 (434–442), 20 (466–468)
	Last day to drop this class	
October 2	Angiosperm Life Cycle	19 (442–451)
5	Angiosperm Diversity	20
7	Angiosperm Diversity	

9	Fall Break no lecture	
12	Economic Botany	21
14	Economic Botany	
16	EXAM 2	
19	Early Development	22 Essay 3 due
21	Cells and Tissues (Primary)	23 (510–516)
23	Cells and Tissues (Secondary)	23 (516–527)
26	Roots	24
28	Shoots	25 (547–559)
30	Shoots	25 (559–579)
November 1	Daylight Saving Time ends. Set clocks back one hour.	
2	Photosynthesis	7 (Review Ch. 5)
4	Photosynthesis	Essay 4 due
6	Respiration	6
9	Wood	26
11	Wood	
13	EXAM 3	
16	Hormones	27
18	External Factors	28
20	Plant Nutrition	29
23	Water Relations	30
25	Thanksgiving Holiday no lecture	
27		
30	Ecology	31 (13–18) [online]
December 2	Biomes	32 [online]
December 8 Tuesday 1:30–4:00 P.M.	Final Exam Comprehensive	Extra-Credit is due