

**BIOLOGY 320**  
**PRINCIPLES OF BOTANY**  
**FALL 2005**

PROFESSOR: DR. H. E. SHEALY, JR.  
OFFICE: ROOM 111D, SCIENCE BUILDING  
OFFICE HOURS: BY APPOINTMENT  
COURSE CREDIT: FOUR CREDIT HOURS  
LECTURE/LABS: MW 9:00AM – 11:40AM ROOM 107, SCIENCE BUILDING  
PHONE/E-MAIL: 803-641-3404/[hshealy@usca.edu](mailto:hshealy@usca.edu)

**COURSE SUMMARY:** PRINCIPLES OF BOTANY IS A ONE-SEMESTER COURSE FOR UPPER LEVEL BIOLOGY MAJORS. THE HISTORY AND DEVELOPMENT OF BOTANY ARE COVERED. THE ORGANISMS STUDIED INCLUDE REPRESENTATIVES FROM THE PROKARYOTES, ALGAE, FUNGI, LICHENS, BRYOPHYTES, FERN ALLIES, FERNS, GYMNOSPERMS, AND ANGIOSPERMS. IN ADDITION AN EFFORT IS MADE TO RELATE THESE ORGANISMS TO EVOLUTION, FORM AND FUNCTION, GROWTH AND DEVELOPMENT, NUTRITION AND TRANSPORT, AND ECOLOGY. THE LECTURE AND LAB COMPONENTS OF THE COURSE ARE BLENDED TOGETHER WITH EMPHASIS ON LEARNING AND DOING BOTANY IN A LECTURE/LAB COMBINATION.

**COURSE GOALS AND OBJECTIVES:** AS STUDENTS OF BIOLOGY, YOU SHOULD ALREADY HAVE A WORKING KNOWLEDGE OF THE BASIC PRINCIPLES OF BIOLOGY. THIS COURSE IS DESIGNED TO ADD TO THAT KNOWLEDGE BY PRESENTING YOU WITH A MORE DETAILED UNDERSTANDING OF PLANTS. YOU WILL BECOME FAMILIAR WITH THE MAJOR GROUPS INCLUDED IN THE "PLANT KINGDOM", HOW THESE PLANTS RELATE TO EACH OTHER AND TO THE ENVIRONMENTS IN WHICH THEY EXIST, AS WELL AS KNOWLEDGE OF THEIR STRUCTURE AND NATURAL HISTORY. THE ECONOMIC AND BIOLOGICAL SIGNIFICANCE OF THE VARIOUS GROUPS WILL ALSO BE EMPHASIZED.

**TEXTBOOK:** BIOLOGY OF PLANTS 7<sup>TH</sup> EDITION BY RAVEN, EVERT, EICHHORN. W.H. FREEMAN/WORTH PUBLISHERS 2005.

A PHOTOGRAPHIC ATLAS FOR THE BOTANY LABORATORY, 4<sup>TH</sup> EDITION, VAN De GRAFF, RUSHFORTH, CRAWLEY. MORTON PUBLISHING CO. 2004.

THERE WILL BE HANDOUTS GIVEN TO YOU DURING THE COURSE TO SUPPLEMENT THE LABS.

**METHODS OF EVALUATION:** YOU WILL BE OBSERVED IN CLASS DISCUSSIONS, QUESTIONS, AND OTHER CLASSROOM INTERACTIONS. THERE WILL BE NUMEROUS OPPORTUNITIES FOR YOU TO SPEAK AND WRITE ABOUT BOTANY...**CLASS DISCUSSIONS AND QUESTIONS ARE ENCOURAGED AND ARE WELCOMED!** THERE WILL BE THREE HOUR EXAMS, TWO LAB PRACTICALS, FOUR JOURNAL PAPERS, AND A COMPREHENSIVE FINAL EXAM.

**GRADE COMPONENTS AND GRADING SCALE:**

THREE HOUR EXAMS* .....	.55%
TWO LAB PRACTICALS.....	20%
FOUR JOURNAL PAPERS.....	10%
FINAL EXAM*.....	15%

100-93 = A; 92-88 = B+; 87-81 = B; 80-76 = C+; 75-70 = C; 69-65 = D+; 64-60 = D; 59-0 = F.

\*YOU WILL BE REQUIRED TO PURCHASE THE LARGE BLUE BOOKS FROM THE USCA BOOKSTORE FOR THE EXAMS. UNLESS YOU ARE GIVEN TO VERY LONG ANSWERS OR IF YOU WRITE REALLY BIG, YOU SHOULD NOT NEED MORE THAN EIGHT (8) BLUE BOOKS. **IT IS YOUR RESPONSIBILITY TO PURCHASE THESE BEFORE THE EXAMS.**

**MAKE-UP EXAMS:** THERE ARE NO MAKE-UP EXAMS. SHOULD YOU MISS AN EXAM FOR A DOCUMENTED EXCUSABLE REASON, AN ALTERNATE EXAM MAY BE GIVEN DURING THE LAST WEEK OF CLASSES ONLY ONE EXAM WILL BE TREATED IN THIS MANNER; ANY OTHER MISSED EXAMS WILL BE COUNTED AS A ZERO.

**JOURNAL ARTICLES:** THIS COMPONENT OF THE CLASS WILL CONSIST OF SELECTING, READING, AND WRITING A SUMMARY OF ONE JOURNAL/MAGAZINE ARTICLE EACH MONTH. I WILL GIVE MORE INFORMATION ABOUT THIS ASSIGNMENT DURING OUR CLASS MEETINGS. **THE JOURNAL ARTICLES ARE DUE NO LATER THAN THE LAST CLASS MEETING OF EACH MONTH EXCEPT AUGUST!**

**ATTENDANCE:** STUDENTS SHOULD REFER TO THE CURRENT USCA STUDENT HANDBOOK OR USCA BULLETIN REGARDING THE ATTENDANCE POLICY. FOR THIS CLASS YOU ARE ALLOWED FOUR UNEXCUSED ABSENCES OF THE REGULARLY SCHEDULED CLASS/LAB MEETINGS. SINCE EACH MEETING IS ACTUALLY A LECTURE AND A LAB, MISSING A DAY IS NOT BENEFICIAL. IF YOU HAVE MORE THAN FOUR UNEXCUSED ABSENCES I MAY ASSIGN THE GRADE OF "F" FOR THE COURSE. I TAKE ROLL FOR EACH CLASS. THEREFORE, I URGE YOU TO ATTEND ALL CLASSES, LABS, FIELD TRIPS, AND TO BE ON TIME.

**DISABILITY STATEMENT:** IF YOU HAVE A PHYSICAL, PSYCHOLOGICAL, AND/OR LEARNING DISABILITY WHICH MIGHT AFFECT YOUR PERFORMANCE IN THIS CLASS, PLEASE INFORM THE OFFICE OF DISABILITY SERVICES, 126A B&E, (803) 641-3609, AS SOON AS POSSIBLE. THE DISABILITY SERVICES OFFICE WILL DETERMINE APPROPRIATE ACCOMMODATIONS BASED ON MEDICAL DOCUMENTATION.

**WRITING CENTER:** USCA PROVIDES A WRITING CENTER LOCATED IN ROOM 201 OF THE H&SS BUILDING. IF YOU NEED EXTRA ASSISTANCE ON ANY WRITING ASSIGNMENT FOR THIS OR ANY OTHER CLASS THAT YOU ARE TAKING, PLEASE TRY THE WRITING CENTER.

**WRITING PORTFOLIO:** ALSO REMEMBER THAT WRITTEN WORK THAT YOU COMPLETE FOR THIS CLASS CAN BE INCLUDED IN YOUR WRITING PORTFOLIO REQUIREMENT. FOR FURTHER INFORMATION ON THE WRITING PORTFOLIO REQUIREMENT, PLEASE CONSULT YOUR CURRENT USCA BULLETIN.

**BIOLOGY 320/FALL 2005**  
**TENTATIVE LECTURE AND LABORATORY SCHEDULE**

<b>WEEK</b>	<b>DATE</b>	<b>TOPIC</b>	<b>LECTURE/LAB</b>
1	22 AUG 24	BOTANY AN INTRODUCTION SYSTEMATICS & PROKARYOTES	1 13, 14
2	29 31	FUNGI FUNGI	15 15
3	5 SEPT 7	<b><u>LABOR DAY HOLIDAY</u></b> PROTISTA I	<b>NO CLASS</b> 16
4	12 14	PROTISTA I PROTISTA II	16 17
5	19 21	PROTISTA II <b>HOUR EXAM I</b>	17 <b>NO LAB</b>
6	26 28	BRYOPHYTES <b>LAB PRACTICAL I</b>	18 <b>NO LAB</b>
7	3 OCT 5	BRYOPHYTES 18 <b>FIELD TRIP I</b>	<b>WOODS</b>
8	10 12	SEEDLESS VASCULAR PLANTS SEEDLESS VASCULAR PLANTS <b>LAST DAY TO DROP WITH A "W"</b>	19 19
9	17 19	GYMNOSPERMS GYMNOSPERMS	20 20
10	24 26	ANGIOSPERMS <b>HOUR EXAM II</b>	21 <b>NO LABS</b>
11	31 2 NOV	ANGIOSPERMS EVOLUTION EARLY DEVELOPMENT	22 23
12	7 9	CELLS AND TISSUES REGULATING GROWTH	24 28
13	14 16	<b>HOUR EXAM III</b> <b>FIELD TRIP II</b>	<b>NO LAB</b> <b>WOODS</b>
14	21 23	<b>LAB PRACTICAL II</b> <b><u>THANKSGIVING HOLIDAY</u></b>	<b>NO LAB</b> <b>NO CLASS</b>
15	28 30	EXTERNAL FACTORS THE FUTURE/LASTCLASS/REVIEW	29 34
16	5/6 DEC 9	READING DAYS <b>FINAL EXAM – FRIDAY AT 8AM</b>	<b>STUDY</b>
	<b>320SYL.F05</b>		<b>22 AUGUST 05</b>