

**BIOLOGY 200/ FALL 2005
PLANT SCIENCE**

PROFESSOR: DR. H. E. SHEALY, JR.
OFFICE: ROOM 111D, SCIENCE BUILDING
OFFICE HOURS: BY APPOINTMENT
COURSE CREDIT: FOUR CREDIT HOURS
LECTURE/LAB TT 9:25AM – 12:05PM, TT 107 SCI BLDG
PHONE/E-MAIL: 803-641-3404 /HSHEALY@USCA.EDU

COURSE GOALS AND OBJECTIVES: PLANT SCIENCE IS A ONE-SEMESTER COURSE DESIGNED FOR NON-MAJORS. THE GOAL OF THIS COURSE IS SIMPLY TO INTRODUCE THE STUDENT TO THE IMPORTANCE AND THE UNDERLYING PRINCIPLES GOVERNING PLANT SCIENCE. SPECIAL EMPHASIS WILL BE PLACED ON THE BASIC LIFE PROCESSES AND THE IMPORTANCE OF PLANTS TO THE WORLD THAT WE LIVE IN AS WELL AS OUR COMPLETE DEPENDENCE ON THEM FOR OUR EXISTENCE. TO SUCCESSFULLY COMPLETE THIS COURSE, THE STUDENT MUST DEMONSTRATE KNOWLEDGE AND UNDERSTANDING OF:

- HISTORY AND DEVELOPMENT OF PLANT SCIENCE
- BASIC BIOLOGICAL COMPOUNDS AND HOW THEY ARE UTILIZED BY CELLS
- THE CELLULAR PROCESSES AND PLANT TISSUES
- IMPORTANCE OF SOILS AND NUTRIENTS
- THE STRUCTURE AND IMPORTANCE OF FLOWERS, FRUITS, AND SEEDS
- WATER RELATIONSHIPS AND PLANT METABOLISM
- THE BASICS OF PLANT BREEDING AND PLANT TECHNOLOGY
- THE CONCEPTS OF SPECIATION AND EVOLUTION
- BASICS OF PLANT CLASSIFICATION
- PLANTS AND CIVILIZATION
- THE FUNDAMENTALS OF SPECIES INTERACTIONS OR ECOLOGY

TEXT: INTRODUCTORY PLANT BIOLOGY, 10TH EDITION BY KINGSLEY R. STERN. PUBLISHED BY MCGRAW HILL, 2006.

LAB: YOU WILL BE SUPPLIED WITH ANY NECESSARY ITEMS FOR THE LABS.

STUDY GUIDE: ON-LINE LEARNING CENTER <http://www.mhhe.com/botany/> FOLLOW THE INSTRUCTIONS

REQUIRED SUPPLIES: SCANTRON SHEETS MAY BE OBTAINED FROM THE USCA BOOKSTORE FOR HOUR EXAMS.

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 PLANTS...**CLASS DISCUSSIONS AND QUESTIONS ARE ENCOURAGED!** THERE WILL BE THREE HOUR EXAMS, FOUR JOURNAL ARTICLES, A LAB PROJECT/PRESENTATION, THREE FIELD TRIPS, AND A COMPREHENSIVE FINAL EXAM.

GRADE COMPONENTS:

LECTURE

- THREE HOUR EXAMS.....55%
- FINAL EXAM.....15%
- FOUR JOURNAL ARTICLES.....10%

LAB

- FIELD TRIPS.....10%
- LAB PROJECT/PRESENTATION.....10%

GRADING SCALE:

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

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

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.

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, AND 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 CONTACT 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 ON 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: 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.

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TENTATIVE LECTURE SCHEDULE

WEEK	DATE	TOPIC	CHAPTER	LAB
1	18 AUG	INTRODUCTION	1	NO LAB
2	23 25	NATURE OF LIFE/CELLS TISSUES	2,3 4	CELLS TISSUES
3	30 1 SEPT	ROOTS AND SOILS STEMS AND LEAVES	5 6,7	ROOTS STEMS
4	6 8	FIELD TRIP I FLOWERS	8	FIELD TRIP FLOWERS
5	13 15	FRUITS AND SEEDS HOURLY EXAM I	8	FRUITS NO LAB
6	20 22	WATER PLANT METABOLISM	9 10	WATER ENERGY
7	27 29	GROWTH PLANT CLASSIFICATION/ NAMES TOPIC OF PAPER DUE	11 16	HORMONES NAMES
8	4 OCT 6	BRYOPHYTES FERNS	20 21	PLANTS PLANTS
9	11 12 13	FIELD TRIP II LAST DAY TO DROP WITH A "W" FALL BREAK HOLIDAY		FIELD TRIP NO LAB
10	18 20	GYMNOSPERMS HOURLY EXAM II	22	PLANTS NO LAB
11	25 27	FLOWERING PLANTS FLOWERING PLANTS	23 24	PLANTS PLANTS
12	1 NOV 3	PLANTS & CIVILIZATION PLANTS & CIVILIZATION	24	SPICE FOODS
13	8 10	ECOLOGY ECOLOGY/ PAPERS DUE	25 25	COMMUNITIES ECOSYSTEMS
14	15 17	FIELD TRIP III HOURLY EXAM III		FIELD TRIP NO MORE LABS
15	22 24	STUDENT PRESENTATIONS THANKSGIVING HOLIDAY		
16	29 1 DEC	STUDENT PRESENTATIONS LAST DAY OF CLASS/STUDENT PRESENTATIONS/REVIEW		
17	5/6 8	READING DAYS FINAL EXAM – THURSDAY at 8 AM		

LABORATORY PROJECT/PAPER
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THIS COMPONENT OF THE CLASS WILL CONSIST OF A PAPER WHICH WILL BE SUBMITTED TO YOUR PROFESSOR AND PRESENTED ORALLY TO THE CLASS. THE PROJECT MAY BE THE RESULT OF YOUR OWN PERSONAL LABORATORY RESEARCH OR IT MAY BE A LIBRARY/LITERATURE RESEARCH PROJECT. REGARDLESS, THE TEXT SHOULD BE AT LEAST 6 AND NO MORE THAN 12 TYPEWRITTEN DOUBLE-SPACED PAGES. TITLE PAGES, REFERENCE PAGES, AND ILLUSTRATIONS WILL BE IN ADDITION TO THE 6 TO 12 TEXT PAGES. THE CLASS PRESENTATION SHOULD BE 10 TO 15 MINUTES LONG.

SIMPLY STATED THE PAPER MUST BE ON A TOPIC ABOUT **PLANTS**. THE TOPIC CAN BE AS DIVERSE AS PLANTS IN LITERATURE, FORESTRY, AGRICULTURE, HORTICULTURE, THE ECONOMIC IMPORTANCE OF A PLANT, CONSERVATION, GREEN POLITICS (LOCAL, STATE, NATIONAL, GLOBAL), HERBAL MEDICINE, PLANT FOLKLORE, PLANT BREEDING, PLANT CLONING, ETC, ETC, ETC. REMEMBER TO CHOOSE A TOPIC THAT INTERESTS YOU AND HAVE FUN LEARNING AND SHARING YOUR KNOWLEDGE WITH THE CLASS!

YOU WILL BE GRADED ON BOTH THE WRITTEN PAPER AND THE ORAL PRESENTATION. THE FORMAT OF THE PAPER MAY VARY DEPENDING ON THE TOPIC AND THE APPROACH THAT YOU USE. HOWEVER, IF YOU DO A RESEARCH TOPIC THE PAPER SHOULD BE WRITTEN IN THE STYLE/FORMAT OF A STANDARD SCIENTIFIC JOURNAL. YOU WILL BE GIVEN ACCESS TO AN UNDERGRADUATE RESEARCH GUIDE TO ASSIST WITH THE PREPARATION AND PRESENTATION OF THE PAPER.

THE **TOPIC** OF THE PAPER IS DUE ON OR BEFORE THURSDAY, **SEPTEMBER 29**, AND THE **PAPER IS DUE** AND MUST BE TURNED IN ON OR BEFORE THURSDAY, **NOVEMBER 10**. **PRESENTATIONS** IN CLASS WILL BEGIN ON TUESDAY, **NOVEMBER 22**. YOU WILL BE PENALIZED FOR BEING LATE IN SUBMITTING YOUR TOPIC OR PAPER PAST THESE DATES.

IF YOU NEED ANY SPECIAL AUDIO-VISUAL EQUIPMENT SUCH AS AN OVERHEAD PROJECTOR, A SLIDE PROJECTOR, OR A VCR, COMPUTER/LCD PROJECTOR, PLEASE LET THE PROFESSOR KNOW IN ADVANCE OF YOUR PRESENTATION.

IF YOU HAVE ANY QUESTIONS ABOUT THIS COMPONENT OF THE COURSE, PLEASE CONSULT WITH YOUR PROFESSOR. THIS PART OF THE COURSE IS SUPPOSED TO BE INFORMATIVE AND ENJOYABLE, SO DON'T GET TOO STRESSED OVER IT!