

**BIOLOGY 528/SEASONAL FLORA
LECTURE AND FIELD TRIP SCHEDULE
MAYMESTER 2009**

PROFESSOR: DR. H. E. SHEALY, JR.
OFFICE: ROOM 111D, SCIENCE BUILDING
OFFICE HOURS: WE WILL BE TOGETHER FOR THE ENTIRE TIME
LECTURE/LABS: MTWTF 8AM – 1PM(FIELD TRIPS)/2PM – 5PM(LECTURE) ROOM 107 SCI BLDG.
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COURSE SUMMARY: SEASONAL FLORA IS A FOUR CREDIT HOUR COURSE FOR UPPER LEVEL BIOLOGY STUDENTS. IT IS PREFERABLE, BUT NOT ESSENTIAL, TO HAVE TAKEN AT LEAST ONE INTRODUCTORY PLANT BIOLOGY COURSE SUCH AS PRINCIPLES OF BOTANY (ABIO 320). ABIO 528 IS AN INTRODUCTION TO PLANT TAXONOMY AND PLANT COMMUNITIES IN SC. THE COURSE WILL INVOLVE CONSIDERABLE FIELDWORK. WE WILL ENDEAVOR TO VISIT A BROAD RANGE OF PLANT COMMUNITIES WITHIN THE LOCAL AREA AS WELL AS OTHER PARTS OF SOUTH CAROLINA.

COURSE GOALS AND OBJECTIVES: THIS COURSE IS INTENDED TO FAMILIARIZE STUDENTS WITH THE FLORA OF SOUTH CAROLINA BY STRESSING THE IDENTIFICATION AND NAMING OF THE LOCAL VASCULAR FLORA. STUDENTS WILL LEARN TERMINOLOGY NECESSARY TO USE DICHOTOMOUS PLANT KEYS SO THAT YOU WILL HAVE THE BASIC KNOWLEDGE AND SKILLS NEEDED TO IDENTIFY PLANTS TO GENUS USING A PLANT KEY AND HAND LENS. ALSO STRESSED WILL BE THE COMMUNITY ASSOCIATIONS THAT PLANTS FORM WITH EACH OTHER BASED UPON SOILS, HYDROLOGY, TEMPERATURE, LIGHT, AND OTHER FACTORS, WHICH CREATE THE CONDITIONS NEEDED FOR THEM TO CO-EXIST. YOU WILL ALSO LEARN BASIC HERBARIUM TECHNIQUES SUCH AS COLLECTING, IDENTIFYING, AND PRESSING PLANTS IN PREPARATION TO MOUNTING THEM FOR INCLUSION INTO A HERBARIUM.

TEXTBOOKS/EQUIPMENT –ALL OF WHICH ARE AVAILABLE IN THE USCA BOOKSTORE:

- MANUAL OF THE VASCULAR FLORA OF THE CAROLINAS BY RADFORD, AHLES, AND BELL. UNIVERSITY OF NORTH CAROLINA PRESS. 1968.
- WILDFLOWERS OF SC. PORCHER AND RAYNER. USC PRESS, 2002.
- EQUIPMENT- A 10X HAND LENS.

HERBARIUM COLLECTION: YOU WILL BE REQUIRED TO MAKE A COLLECTION OF 170 PRESSED PLANTS, WHICH IS REALLY YOUR HOMEWORK FOR THE COURSE. STUDENTS WILL WORK IN PAIRS ON THIS PROJECT. PLANTS MUST BE IDENTIFIED TO GENUS. HOWEVER YOU CAN HAVE MORE THAN ONE PLANT OF THE SAME GENUS IF YOU IDENTIFY THEM TO SPECIES. FOR INSTANCE YOU CAN HAVE THREE OR FOUR PINES AS LONG AS YOU GIVE THE SPECIES OF EACH...FOR EXAMPLE LONGLEAF PINE, Pinus palustris, LOBLOLLY PINE Pinus taeda, ETC.

EACH PLANT SHOULD BE FILED IN A FOLDER OF NEWSPAPER WITH A 3 X 5 NOTE CARD WITH THE FOLLOWING INFORMATION.

- FAMILY NAME AND NUMBER
- NAME OF PLANT – GENUS AND SPECIES IF KNOWN
- COMMON NAME IF KNOWN
- LOCATION WHERE PLANT WAS COLLECTED
- DATE COLLECTED
- NAME OF COLLECTOR(S)

THE PLANTS SHOULD BE FILED IN FAMILY ORDER AS PRESENTED IN YOUR TEXTBOOK. START WITH FAMILY #1 PSILOACEAE THROUGH FAMILY #179 ASTERACEAE. THE COLLECTION WILL BE GRADED ON QUALITY OF PLANTS PRESSED, THE COMPLETENESS OF INFORMATION ON THE NOTE CARDS, THE ORGANIZATION OF THE COLLECTION, AND THE NUMBER OF PLANTS COLLECTED. YOU WILL BE ELIGIBLE FOR MAXIMUM CREDIT ONLY IF YOU HAVE AT LEAST 170 PLANTS IN YOU COLLECTION. A COLLECTION OF LESS THAN 130 PLANTS IS NOT PASSING. YOU SHOULD DISCUSS YOUR COLLECTION OF PLANTS WITH YOUR PROFESSOR EARLY IN THE COURSE TO INSURE THAT YOU ARE DOING IT PROPERLY.

$\leq 170 = A$ $159 - 155 = C+$ $144 - 130 = D$
 $169 - 165 = B+$ $154 - 150 = C$ $\geq 129 = F$
 $164 - 160 = B$ $149 - 145 = D+$

EQUIPMENT: EACH STUDENT WILL BE ASSIGNED PLANT PRESSES, BLOTTERS, VENTILATORS, AND A PAIR OF SHEARS FOR MAKING YOU PLANT COLLECTION. **YOU MUST RETURN ALL EQUIPMENT AT THE END OF THE COURSE.**

FIELD TRIPS: THE BEST WAY, BY FAR, TO UNDERSTAND PLANTS AND THEIR COMMUNITY RELATIONSHIPS IS TO GO TO WHERE THE PLANTS LIVE AND SEE THEM IN THEIR NEIGHBORHOOD. **THIS COURSE IS PRIMARILY FIELDWORK.** THE FIELD TRIPS CAN, AND PROBABLY WILL, BE HOT, SOMETIMES WET, MUDDY, MESSY, AND BUGGY AS WELL AS THE OTHER USUAL BENEFITS ONE DERIVES FROM BEING IN THE FIELD IN SOUTH CAROLINA IN MAY. YOU SHOULD COME PREPARED FOR FIELD TRIPS BY WEARING COMFORTABLE AND SUITABLE CLOTHING SUCH AS LIGHT BOOTS OR TENNIS SHOES...SANDALS ARE DISCOURAGED! IN MOST CASES ONE SHOULD WEAR LONG PANTS TO PROTECT LEGS FROM BRUSH AND INSECTS. LONG SLEEVES ACCOMPLISH THE SAME THING FOR THE ARMS. STUDENTS SHOULD ALSO BRING A SMALL PACK CONTAINING YOUR TEXTBOOK, HAND LENS, BAGS TO COLLECT PLANTS, PRUNING CLIPPERS, A FIELD NOTEBOOK, A PENCIL, A HAT, WATER, INSECT REPELLENT, SUNSCREEN, AND MAYBE EVEN A SNACK.

MEDICAL: IF YOU HAVE A MEDICAL CONDITION THAT MAY BE A PROBLEM, PLEASE ADVISE THE PROFESSOR IMMEDIATELY SO THAT IT CAN BE PROMPTLY ADDRESSED, IF NEEDED! IN THE FIELD WE ENCOUNTER POISONOUS PLANTS AND ANIMALS, TICKS, SPIDERS, AS WELL AS BITING AND STINGING INSECTS. ALL PRECAUTIONS ARE TAKEN TO MAKE FIELD TRIPS SAFE!!!

METHODS OF EVALUATION: YOU WILL BE QUIZZED EVERY TIME WE HAVE A FIELD TRIP OR LECTURE. ON EACH FIELD TRIP YOU WILL HAVE A PLANT IDENTIFICATION QUIZ THAT WILL REQUIRE YOU TO IDENTIFY 10 PLANTS TO GENUS. FOR EACH CLASS YOU WILL BE QUIZZED ON VOCABULARY TERMS NECESSARY TO IDENTIFY PLANTS. IN ADDITION THERE WILL BE A FINAL KEYING EXAM, A FINAL FIELD EXAM AND A HERBARIUM COLLECTION OF 170 PRESSED PLANTS. EACH OF THESE COMPONENTS OF THE CLASS WILL COUNT AS FOLLOWS:

FIELD QUIZZES	9-10	40%
VOCABULARY QUIZZES	7-9	20%
FINAL KEYING EXAM	1	10%
FINAL FIELD EXAM	1	15%
HERBARIUM COLLECTION	1	15%

GRADING SCALE

100 – 93 = A	86 – 81 = B	75 – 70 = C	65 – 60 = D
92 - 87 = B+	80 – 76 = C+	69 - 66 = D+	59 - 0 = F

DURING THIS COURSE YOU ARE ALWAYS WELCOME, ACTUALLY ENCOURAGED, TO PARTICIPATE IN THE DISCUSSIONS AND INQUIRIES. IDEALLY, UNIVERSITIES ARE ALL ABOUT OPEN AND RESPECTFUL EXCHANGE OF IDEAS AND OPINIONS AMONG PEOPLE IN SEARCH OF KNOWLEDGE!

MAKE-UP EXAMS/QUIZZES: THERE WILL BE NO MAKE-UP EXAMS/QUIZZES. OF THE 9-10 FIELD OR VOCABULARY QUIZZES, THE LOWEST SCORE WILL BE DROPPED.

ATTENDANCE: THIS COURSE IS SO COMPRESSED THAT A DAY IS EQUIVALENT TO A SLIGHTLY OVER A WEEK DURING A REGULAR SEMESTER. IT IS ABSOLUTELY ESSENTIAL THAT YOU ATTEND ALL CLASSES, LABS, AND FIELD TRIPS AND THAT YOU **ARE ALWAYS ON TIME**. WE LEAVE ON FIELD TRIPS AT THE APPOINTED TIME...8 AM! **MISSING A CLASS WILL COST YOU 5 POINTS FROM YOUR FINAL GRADE PLUS WHATEVER QUIZZES YOU MISS.** IT IS ALWAYS MY ASSUMPTION THAT YOU ARE TAKING THIS COURSE BECAUSE YOU CHOOSE TO TAKE IT AND TO BE FAIR TO EVERYONE **WE START ON TIME**.

DISABILITY STATEMENT: IF YOU HAVE A PHYSICAL OR LEARNING DISABILITY WHICH MIGHT AFFECT YOUR PERFORMANCE IN THIS CLASS, PLEASE INFORM THE OFFICE OF DISABLED STUDENT SERVICES AS SOON AS POSSIBLE. ONCE AN EVALUATION HAS BEEN MADE, APPROPRIATE ACCOMMODATIONS WILL BE DETERMINED.

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: YOU ARE REQUIRED TO SUBMIT A WRITING PORTFOLIO AS A REQUIREMENT FOR GRADUATION. 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.

TENATIVE COURSE SCHEDULE

WEEK ONE

<u>DAY</u>	<u>DATE</u>	<u>TOPIC/FIELD TRIP</u>
1	11 MAY* 11	INTRODUCTION & HITCHCOCK WOODS HERBARIUM TECHNIQUES
2	12* 12	HITCHCOCK WOODS KEYING AND FLORAL CHARACTERISTICS
3	13* 13	HEGGIE ROCK KEYING AND VEGETATIVE CHARACTERISTICS
4	14* 14	SAVANNAH RIVER BLUFFS KEYING AND FAMILY CHARACTERISTICS
5	15**	SC MOUNTAINS/OCONEE STATION FALLS LAST DAY TO DROP WITH A "W"

WEEK TWO

6	18 **	LANDSFORD CANAL STATE PARK
7	19 19	STEVEN'S CREEK KEYING AND THE CONCEPT OF TAXA
8	20**	CONGAREE SWAMP NATIONAL MONUMENT
9	21* 21	WOODLANDERS, CITY ARBORETUM, HOPELAND GARDEN KEYING AND THE HISTORY OF TAXONOMY
10	24**	SC COAST/SEABROOK ISLAND

WEEK THREE

11	25* 25	AIKEN STATE NATURAL AREA AND/OR CRAIG'S POND KEYING AND REVIEW
12	26* 26	HITCHCOCK WOODS FIELD REVIEW LAST DAY OF CLASS & KEYING FINAL EXAM
13	27*	FIELD FINAL & HERBARIUM COLLECTION

* REGULAR FIELD TRIPS ** LONGER FIELD TRIPS
FIELD TRIP AND LECTURE SCHEDULE ARE SUBJECT TO CHANGE

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