

FIELD BOTANY
BIO 235
SPRING 2005
Dr. Eloise Carter

**Proposed topics for discussion and lab*

		LECTURE/DISCUSSION	LAB/FIELD
Jan.	20	What's Field Botany?	
	25	Why Can't I See The Trees? B.Y.O.T.	Trees in Winter I: (Bring "Identification Of S.E. Trees in Winter")
	27	What's in a name? Variation and Taxonomy	
Feb.	1	The Eastern Deciduous Forest	Trees in Winter II: Hearn Forest and the Oxhouse
	3	Ethnobotany: Amazing uses of plants	
	8	Southern Medicinal Plants Patricia Howell, medical herbalist	Bottomland hardwood Forest, Gum Creek
	10	Information Resources for Botany <i>Draw for dates</i> (meet in P206)	
	15	Hypnotic Exotic: Orchid Daze Trip to the Botanical Garden	Depart 11:30 a.m. (Bring a snack and water.)
	17	TREE QUIZ Paper Topics: Outline and Annotated Bibliography	
	22	What is a species? How do species originate?	Yellow River Ravine Forest
	24	The Origin of <u>Talinum teretifolium</u>	

**Note: This proposed schedule will change as weather, opportunity and interest suggest.*

March	1	Sex Advice from the Plant Kingdom	The “key” to flowers and fruits – BYOF (Bring “Radford”)
	3	“Help, I can’t find a persimmon!”	
	8	Early Spring flowers; collecting and identifying; Meet in Lab at 11:30 am	
	10	***WINTER TREE EXAM*** Field Notebooks due in class.	
	14-20	***SPRING BREAK***	
	22	The Importance of Place	“Weeds” of field and lawn
	24	Student Presentations: Plant Families	
	29	Student Presentations: Plant Families	Botanical excursion; Bring Radford
	31	Student Presentations: Plant Families	
April	5	Wesley Woods: Old growth Forests of Emory University	Depart at 11:30 a.m. (Bring a snack and water!)
	7	Invasive Plants: Hands on Experience!	
	12	What is a weed?	The Urban Landscape
	14	Plant Identification Bring Radford	
	19	Endemism and rock outcrops	Granite Outcrops
	21	Review of major plant families	
	23,24	***Weekend Field Trip***	Appalachian Mountains

26	Wetlands	Alcovy River Swamp
28	Final Preparations	

May 3 Final Laboratory Exam: Plant Identification with Radford

4 ***Reading Day***
Which trees haven't you seen? The last walk!!

Monday, May 9*FINAL TREE EXAM***(2 pm – 5pm) Field notebooks due.**

Texts: Preston, R.J., Jr., and V.G. Wright. 1985. *Identification of Southeastern Trees in Winter*. North Carolina Agricultural Extension Service. The only guide to trees in winter for this area. **(Required)**

Radford, A.E., H.E. Ahles and C.R. Bell. 1968. *Manual of the Vascular Flora of the Carolinas*. University of North Carolina Press. The most complete flora of the Southeast. Others will be available in lab. **(Required)**

Harrar, E.S. and J.G. Harrar. 1962. *Guide to Southern Trees*. Dover Press. This is an excellent guide to trees, but does not include shrubs. (optional)

Smith, J.P., Jr. 1977. *Vascular Plant Families*. Mad River Press. This book will be provided in the lab as a reference.

"One impulse from a vernal wood
May teach you more of man,
of moral evil and of good,
Than all the sages can."

from:
Expostulation and Reply
Walt Whitman

A FIELD GUIDE TO FIELD BOTANY

CLASS OBJECTIVES:

- to study in the field and laboratory the flora of southeastern plant communities;
- to identify in the field 50+ woody plants in the winter condition;
- to identify in the field 100+ woody plants in the spring;
- to use a taxonomic key to identify local flora;
- to investigate the medicinal uses of plants;
- to develop the observation and investigative skills to be keen observers of the natural world, *forever*.

CLASS PREPARATION: Students do not have readings from a textbook, but should expect to read articles for background information. Students should be prepared to ask questions and to participate in class and laboratory discussion. Students are responsible for *all* material in lab, field and lecture. Classroom material provides the background and instruction needed to be successful botanists in the laboratory and field. References and resources are provided in the laboratory. Use them!

WOODY PLANTS: Students will be able to identify approximately 50 woody plants in the winter condition before Spring Break and around 100 woody plants by the end of the semester. *Students are expected to take the initiative and responsibility for locating and identifying woody plants. The instructor is one of many resources available to students.*

FIELD NOTEBOOKS: Students will keep a notebook for field observations and notes. The purpose of a field notebook is to promote, reward, and evaluate good field observations and identification skills. Each entry in your Field Book **must include** *date, location and observers. This is followed by a general description of the site, including physical features, indications of disturbance, community type; notes on species of importance or interest; and notes on characters for identifications. All notes must be made in pencil in the field, with a required summary paragraph added later.* Notebooks will be collected and graded twice during the semester.

STUDENT PAPERS AND PRESENTATIONS: Each student will investigate a plant or group of plants which have medicinal properties. Each student will prepare a paper (approximately 10 pages) on the ethnobotany of their taxa. The papers are due on the day after their presentation. Students will select a portion of their work to present in a 15-20 minute presentation in class on March 24, 29, and 31. Look for an information sheet in the second week of class.

FIELD EQUIPMENT: Every student will need a hand lens for class and lab. These are available for purchase or loan. A pocket knife is not required, however I strongly recommend you purchase or borrow one for the semester. *Students should pick up a collecting bag and rubber band before going in the field.*

WEEKEND FIELD TRIP: All students are expected to attend the weekend field trip and should **make plans in advance**. The cost of the trip varies, but usually costs around \$25.

HONOR CODE: All examinations and work for credit in this course come under the regulations of the Honor Code. Your signature on your work attests to your upholding the Honor Code.

OFFICE HOURS: Office: P105, 4-8343; Monday and Wednesday 11:45-12:30. *On Wednesday I will be in the library or on the Green for office hours.* I am available to help at any time. For an appointment see me in class or come by my office.

ABSENCES: Don't be absent, you will miss too much! However, if emergencies or illness prevent attendance, please notify the instructor immediately. The Biology department policy on absences is available as a separate handout.

EVALUATIONS: Students will be evaluated on ethnobotany presentation and paper, field notebook, field exams on woody trees, weekly plant identifications, and a final laboratory identification of unknown flowering plants. Written examinations may be given in lecture. Class participation, contributions to laboratory and field work and the development of field skills also will be considered.

Proposed contributions to grade:

Tree identification 30%
Weekly identification of flora 20%
Exam - identification of flora 20%
Field Notebook 15%
Paper and presentation 10%
Other class work 5%