FIELD BOTANY
BIO 235
SPRING 2010
Dr. Eloise Carter

***Proposed* topics for discussion and lab**

		LECTURE/DISCUSSION	LAB/FIELD
Jan.	14	What's Field Botany? Where's the "Temple of the Trees?"	
	19	Twig Revelations B.Y.O.T. (bring your own twig)	Trees in Winter I: (Bring *Native Trees of the Southeast)*
	21	Plant Diversity and Classification	
	26	The Eastern Deciduous Forest	Trees in Winter II: Hearn Forest and the Oxhouse
	28	Ethnobotany: Amazing Uses of Plants	
Feb.	2	Medicinal Plants of Appalachians *Draw for presentation dates*	Bottomland hardwood forest, Gum Creek
	4	Information Resources for Botany(meet in P206)	
	9	Atlanta Botanical Garden *Orchid Daze*	Depart at 11:30 a.m.
	11	**TREE QUIZ** Be on time	
	16	Reading the Landscape *Medicinal Plant Project: Outline and Annotated Bibliography Due*	Stone Mountain Creek Mesic Forest (will depart early)
	18	Ecoregions of Georgia: The Piedmont	
	23	Sex Advice from the Plant Kingdom	The "key" to flowers and fruits – BYOF (Bring "Radford")
	25	"Help, I can't find a persimmon!"	
Mar.	2	Early Spring flowers; collecting and identifying	Meet in Lab at 11:30a.m.
	4	*****WINTER TREE EXAM*****	**Field Notebooks due in class. Meet in Lab**
	8-14	*****SPRING BREAK*****	
	16	Major Plant Families	Oxford's "wild gardens" of field and lawn
	18	3 Student Presentations: Plant Families	

	23	3 Student Presentations: Plant Families	Botanical excursion;
	25	4 Student Presentations: Plant Families	
	30	Wesley Woods: Old Growth Forests of Emory University	Depart at 11:30 a.m. (Bring lunches!)
April	1	Review of major plant families – Bring Radford	
	6	Endemism and rock outcrops	Granite Outcrops (Bring water!)
	8	"Dr. Murdy, Can you help me?" - Bring Radford	
	13	What is a weed?	The Urban Landscape
	15	Plant Identification - Bring Radford	
	17, 18	*****Weekend Field Trip*****	**Mountains or Coastal Plain**
	20	Biodiversity & Wetlands	Lake Varner & Alcovy River Swamp
	22	Final Preparations	
	27	**Final Laboratory Exam: Plant Identification with Radford 11:30-4**	
	28	***Reading Day*** Which trees haven't you seen? One last walk!	
		****FINAL TREE EXAM****	**Field notebooks due**

Texts: Kirkman, L.K., C.L. Brown and D. J. Leopold. 2007, *Native Trees of the Southeast*. Timber. Includes native trees in winter and with leaves. Non-native trees will require use of lab reference books. **(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. This book will be provided in the lab as well as several others.

Harris, J.G. and M. W. Harris. 2001. *Plant Identification Terminology: An Illustrated Glossary*. Spring Lake Publishing. Words and pictures to assist in learning the language of botany. Several copies are provided in lab – will be your best friend.

"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 critical 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 for background information. Students should be ready to ask questions and to participate fully in class and laboratory discussions and activities. Students are responsible for *all* material in lab, field and lecture. Classroom materials provide the fundamentals essential to be successful botanists. References and resources are provided in the laboratory. Be resourceful!

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 BOOKS: Students will keep a field book for field observations and notes. The purpose of a field book is to promote, reward, and evaluate good field observations and identification skills. Field books are purchased from your instructor.

Each entry in your Field Book **must include:**

- **date, location, observers**
- **general description (physical features, disturbance, community type**
- **notes – what you want to remember – species, characteristics, how to identify**
- **a reflection - required paragraph that summarizes experiences and reveals thought and creativity**

Field books will be collected and graded twice during the semester. *All notes must be made in **pencil** in the field.*

STUDENT PAPERS AND PRESENTATIONS: Each student will investigate a plant family and examples of plants in that family that have medicinal properties. Each student will prepare a paper (approximately 6 pages) on the ethnobotany of their taxa. The papers are due on the Tuesday following their presentation. Students will select a portion of their research to present in a 15 minute presentation in class on March 19, 24 and 26. 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. Everyone should bring a personal water bottle for lab days. *Students should always pick up a collecting bag and rubber band before going in the field.*

WEEKEND FIELD TRIP: All students must attend the weekend field trip and should **make plans in advance**. The cost of the trip varies, but usually costs around $20 or less.

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: P107, 4-8343; Monday 10:30 – 11:30 and Wednesday 11 – 12 noon. 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 attached.

EVALUATIONS: Students will be evaluated on medicinal plant family 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 class. Class participation, contributions to laboratory and field work, and the development of field skills also will be considered. Think of your grade as having 3 components:

- **TREES** – Quizzes, exams and other work on your winter and complete tree lists.
- **FIELD WORK & WRITING** – Field book, plant family paper and presentation & other projects
- **PLANT IDENTIFICATION** – Laboratory plant ID, weekly work, quizzes and exam

***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%