

Dendrology Syllabus BSC 434

Instructor: Dr. Micheal Davis
Office: JST 1009A
Phone: 266-5419
E-mail: Mike.Davis@usm.edu

Texts: *Trees of Georgia and Adjacent States*, Brown and Kirkman, 1990
The Trees of Florida, Nelson, 1994 (optional)
Native Shrubs and Woody Vines of the Southeast, Foote and Jones, 1989 (optional)

Other required items: 10x hand lens, field notebook

If a student has a disability that qualifies under the Americans with Disabilities Act and requires accommodations, he/she should contact the Office for Disability Accommodations for information on appropriate policies and procedures. Box 8586; Tel. 266-5024; TTY 266-6837; Fax 266-6035. Suzy Hebert is the ODA coordinator.

Course Objectives - Upon completion of this course the student should be able to:

1. Recognize morphological characteristics and use the terminology necessary for the identification of woody plants
2. Use taxonomic keys to identify unknown woody plants.
3. Recognize by sight the trees, shrubs and woody vines native to Mississippi.
4. Apply the proper taxonomic scheme and nomenclature to the trees, shrubs and woody vines native to Mississippi.
5. Recognize and describe the morphological differences between the families of trees, shrubs and woody vines native to Mississippi.
6. Describe the successional status and habitat requirements of the species under consideration.
7. Identify important non-native tree species.

Field Quizzes:

We will have field quizzes on most of our field trips after the first week of class. You will be tested on sight identification of plants you have been formally introduced to during previous classes (either field trip or lab) and on the keying of unknowns. You will be expected to know the Latin names.

You will also be asked to apply material covered in previous class periods, i.e.-describe leaf structures

Plant Collection:

You will turn in a collection report which should include the following sections: SITE DESCRIPTION, MAP OF SITE (showing distribution of species), SPECIES LIST

Due Dates: mid-semester - 25 species
last lab session - 25 species and collection notebook

Species Requirement: 50 different native woody plants, correctly identified to species, pressed with neatly labeled on 3x5 index cards. Cultivated ornamentals do not count toward the required total of 50 species. It is sufficient to place them in folded newspapers – one specimen plus label per folded newspaper. The size of the specimen must be no larger than that of a standard herbarium sheet.

Only specimens that show all of the characters necessary for proper identification will be accepted.

The specimen must include a section of stem, not just leaves. Winter -- condition twigs are acceptable if collected after the leaves have fallen. It is desirable to include fruits and/or seeds if they are available.

The label should include the following:

- (1) family, genus, specific epithet and author
- (2) where you collected it, you must be specific enough with your description so that someone else can find the location where you collected the specimen
- (3) relevant ecological data (e.g. beside stream, north-facing slope, etc.),
- (4) descriptive information not evident from the specimen (e.g. tall tree, vine, shrub 3 feet tall, etc.)
- (5) the collection date
- (6) your name. Please also number each specimen with your collection number.

You will not be given any labeling points if any of the above information is not on your index card

Each time you turn in your collection, you must include a list of your specimens (with collection number and species in either numerical or alphabetical order. Keeping such a list as you collect will help you avoid duplications.

Lab topic schedule:

Lab 1: Leaf and stem morphology, reproductive structures, introduction to dichotomous keys

Lab 2: Coniferophyta

Lab 3: Salicaceae, Juglandaceae, Betulaceae, Ulmaceae, Moraceae, Tiliaceae

Lab 4: Fagaceae

Lab 5: Magnoliaceae, Annonaceae, Lauraceae, Hamamelidaceae, Platanaceae, Rutaceae

Lab 6: Rosaceae, Fabaceae, Anacardiaceae, Cyrillaceae, Aquifoliaceae, Araliaceae, Nyssaceae

Lab 7: Aceraceae, Hippocastanaceae, Rhamnaceae, Cornaceae, Ericaceae, Sapotaceae, Ebenaceae, Styraceae, Oleaceae, Bignonaceae

Lab 8: Ragland Hills field trip

Lab 9: Longleaf pine field trip

Lab 10: Bottomland hardwoods field trip

Lab 11: Shrub identification I

Lab 12: Shrub identification II

Lab 13: Vines

Lab 14: Urban forestry

Lab 15: Lab Final, collections due

Grading:

10 field quizzes - 10 points each	100 points
midterm lab practical	100 points
final lab practical	100 points
collection	100 points

Final grades are based on points earned (400 total points).

Total points	Final grade
360-400 points	A
320-359 points	B
280-319 points	C
240-279 points	D
0-239 points	F