BIOL 5600 ς LOCAL FLORA FALL SEMESTER 2011

Instructor: Dr. Carter
Office: BC 1040 or BC 1105
Telephone: (229) 333-5763, ext. 5338

Mon: Lec AB 2:00 – 3:15 PM, BC 2040
Mon: Lab B 3:30 – 6:20 PM, BC 2040
Tues: Lab A 2:30 – 5:20 PM, BC 2040
Wed: Lec AB 2:00 – 3:15 PM, BC 2040

BC 1040 or BC 1105
Tues., 1:00 – 2:00 PM; Wed., 3:30 – 5:00 PM; other times by appointment

Course Description

A field-oriented study emphasizing identification, distribution, and ecology of locally occurring seed-bearing plants. Identification using floristic manuals and sight identification of the common native woody flora will be stressed during laboratory. Pre-requisite: BIOL 1107 and BIOL 1108, or permission of instructor.

Course Outcomes

Following is a list of course outcomes linked to Biology Department Educational Outcomes (B) and Valdosta State University General Educational Outcomes (V).

The student will collect, document, and prepare herbarium specimens, using proper ethical standards, especially regarding rare, threatened or endangered species.

The student will demonstrate sufficient proficiency with dichotomous keys in a regional floristic manual to identify unknown specimens reliably.

The student will be able to identify in the field common local native and naturalized plants by family and genus names, including the indicators of the major plant communities.

The student will be able to identify and describe major plant communities in the Georgia coastal plain.

The student will demonstrate the ability to handle and analyze plant materials in the laboratory and in the field. [B1; V 5, 7]

The student will demonstrate the ability to use scientific equipment effectively in the laboratory and in the field. [B1; V4, 5, 7]

The student will demonstrate comprehension of basic concepts and the ability to use scientific terminology accurately through effective oral and written communication and use of dichotomous keys in a regional floristic manual. [B1; V4, 5, 7]

The student will demonstrate the ability to follow oral and written instructions effectively. [V 4, 7]

The student will demonstrate the ability to access course resources and complete assignments on-line using computer technology (i .e., BlazeVIEW). [V 3]

The student will demonstrate the ability to complete assignments and tests ethically. [V 8]

Required Texts

by A.E.

Radford, H.E Ahles & C.R. Bell

semester. Collectively, the field identification quizzes account for 10% of the course grade.

Keying quizzes. Several keying quizzes will be given to measure proficiency using dichotomous keys in . Substantial lab time will be devoted to supervised determination of unknown specimens, with dichotomous keys. It is imperative that students attend lab and field trips regularly and practice identification of specimens in order to develop proficiency with these keys. Collectively, the keying quizzes account for 20% of the course grade.

Class project and plant collection. As a group, the class will inventory the flora of the Lake Louise Field Station (LLFS). Collection of voucher specimens is the standard way to document any floristic inventory. Therefore, in order to document our work, we will collect a set of vouchers and images during our weekly field

COURSE SCHEDULE WITH LIST OF MAJOR TOPICS FALL SEMESTER 2011

Note: Items shown in bold are assignments posted on BlazeVIEW. The complete lecture outline with reading and other assignments, eHandouts, and links to useful web sites can be found under Course Content in BlazeVIEW. Various special dates, including holidays and Saturday and weekend field trips, are shown in .

Week 1: 15 August
- Introduction, Identification, classification, & nomenclature
- Structure & terminology: flowers & inflorescences
- Lab: Botany Lab (BC 2040)

Week 2: 22 August
- Diversity in leaf form: On-campus leaf collection
- Structure & terminology: underground parts, stems, leaves, surface features
- Biohazards in the field
- Preparation for field work
- Lab: Botany Lab (BC 2040)

Week 3: 29 August
- Structure & terminology: underground parts, stems, leaves, surface features
- Lab: Field trip, Lake Louise FS

Week 4: 05 September
- Structure & terminology: habit, fruits & seeds
- Using dichotomous keys in a floristic manual
- Lab: Field trip, Lake Louise FS

Week 5: 12 September
- The herbarium
- Collection & care of voucher specimens
- Uses of the herbarium & floristic data
- Lab: Field trip, Lake Louise FS

Week 6: 19 September
- Recording data
- Keeping a field notebook
- Where in the world were we?
- Lab: Field trip, Lake Louise FS

Week 7: 26 September
- Rare, threatened, & endangered flora
- Survey of protected species
- Lab: Field trip, Lake Louise FS

Week 8: 03 October
- Non-indigenous flora
- Alien invaders
- Lab: Field trip, Lake Louise FS

Week 9: 10 October
- Poisonous plants
- Poisonous plants
- Lab: Field trip, Lake Louise FS

Week 10: 17 October
- Phytogeography
- How do we classify the vegetation at Lake Louise?
- Lab: Field trip, Lake Louise FS

Week 11: 24 October
- Vegetation Classification
- Physiography & flora
- Lab: No lab this week, because of holiday

Week 12: 31 October
- Plant family survey
- Lab: Field trip, Lake Louise FS

Week 13: 07 November
- Plant family survey
- Lab: Field trip, Lake Louise FS

Week 14: 14 November
- Plant family survey
- Lab: Field trip, Lake Louise FS

Week 15: 21 November
- Plant family survey
- Lab: Field trip, Lake Louise FS

Week 16: 28 November
- Plant family survey
- Lab: Field trip, Lake Louise FS

Mon., 05 Dec. – Last Day of Classes