

BIOL 5600 – LOCAL FLORA**FALL SEMESTER 2011**

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

Weekly Lecture and Lab Schedule

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

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

- *Manual of the Vascular Flora of the Carolinas* by A.E. Radford, H.E Ahles & C.R. Bell, University of North Carolina Press, 1968
- *Guide to Flowering Plant Families* by W.B. Zomlefer, University of North Carolina Press, 1994

Supplementary References

- **The Natural Environments of Georgia* by Wharton, Georgia Department of Natural Resources, 1978
- **Protected Plants of Georgia* by Patrick, Allison & Krakow, Georgia Department of Natural Resources, 1995
- **An Introduction to Plant Taxonomy* by Lawrence, 1955
- Other references and assigned readings will be placed on reserve in Odum Library or provided electronically through BlazeVIEW.

Miscellaneous Required Items

- Pencils or pens for recording notes, etc.
- Spiral bound notebook convenient for field trips
- 200 3X5 inch note cards for field quizzes
- *Hand lens with lanyard may be purchased from the VSU Bookstore. It is the student's responsibility to bring the hand lens on all field trips.

Additionally, the following are recommended for field trips.

- Old clothes, including long pants, and sturdy shoes or boots, and rain gear and warm clothing, as appropriate
- Insect repellent and bottled water
- *Immediately upon returning from field trips, students are urged to check their bodies thoroughly for ectoparasites (i.e. ticks) and, if possible, to shower.*
- Food for all-day field trips

COURSE POLICIES & REQUIREMENTS

BlazeVIEW. A variety of course resources and materials will be made available through BlazeVIEW, and it will also be used to administer assignments and assessments and to post announcements and grades. Students should log onto BlazeVIEW daily in order to check for course announcements and to complete scheduled course assignments. Also, the Mail tool in BlazeVIEW provides a convenient means for students to contact one another and their instructor, and it should always be used to communicate about matters relating to the course. To access BlazeVIEW, select the link near the upper right corner of the Valdosta State University homepage. Students experiencing difficulties using BlazeVIEW should seek assistance through the VSU Information Technology HELP-Desk located in Odum Library (telephone 245-4357).

General statement. In order to complete BIOL 5600 successfully, one must be mindful of all policies relating to attendance, grading, etc. Before the end of the first week of classes, after reading the course syllabus and comprehending the policies presented therein, log onto BlazeVIEW and use BlazeVIEW Mail to send a brief message to your instructor informing him that you have read the course syllabus and understand all course policies.

Regular attendance of scheduled lecture and laboratory periods, daily preparation, and review are essential for success in this course. Students should prepare for each lecture session by reading the assigned sections from the textbook and other sources as assigned under Course Content in BlazeVIEW. Students should bring their textbooks to each scheduled lecture and laboratory period, since they will be used regularly during lecture and lab. Notes should be taken regularly during lecture and laboratory and should be used along with the text and materials made available through BlazeVIEW in studying for examinations.

Attendance and punctuality. Attendance, participation and attitude account for 10% of the final course grade. Regular attendance and punctuality are expected. The student is responsible for all material missed, regardless of the reason for absence. Students arriving late for class should enter the lecture room or laboratory quietly and take the nearest seat to avoid disruption. Bear in mind that field trips normally require prompt departure from campus and that tardiness could easily result in a student missing transportation to the field site and absence from lab, and that such absences will adversely affect the course grade. Attendance will normally be taken at the beginning of the period. Students who arrive after the roll is called are counted absent unless they inform their instructor immediately after class of their tardiness. It is the student's responsibility to inform the instructor of her/his tardiness. Each three cases of tardiness will be counted as one absence, and cases of tardiness will be counted as absences thusly, unless a satisfactory explanation is provided to the instructor by the student. It is the instructor's

prerogative to have the explanation in writing. Any scheduling problems or other extenuating circumstances necessitating chronic tardiness should be explained to the instructor in writing and properly documented at the beginning of the semester. In order to have an absence excused, the student must provide a written explanation with proper documentation immediately upon returning to class. Provision of an explanation of absence or tardiness by the student does not insure that the absence or tardiness will be excused. The instructor shall determine the validity of all excuses. Students absent from more than 20% of the regularly scheduled lecture and laboratory periods are subject to failure in the course. See Absence Regulations in the *VSU Undergraduate Catalog*, accessible through the following Internet address.

<http://valdosta.edu/catalog/0708/ugrad/index.shtml>

Fieldtrips. On-site, spontaneous identification of native and naturalized plants and plant communities will be emphasized on field trips. Both of these components account for a substantial portion of the course grade; therefore, attendance of all scheduled fieldtrips is absolutely critical for success in the course. In addition to insect repellent and water and other items recommended above, students should bring both textbooks, hand lens, 3X5 note cards, and notebook on all fieldtrips. In addition to the required, fieldtrips during the scheduled lab periods, two all day Saturday fieldtrips and a weekend fieldtrip to Sapelo Island are scheduled. Participation on the all-day Saturday fieldtrips is optional, *but strongly encouraged*. Participation on the Sapelo Island weekend field trip is a course requirement. For the regular and Saturday fieldtrips students should bring water, soft drinks, and food as needed. A special checklist of essential and recommended items will be provided for the weekend fieldtrip to Sapelo Island. Lodging expenses at UGAMI will be paid by the Valdosta State University Foundation Price-Campbell Fund. However, students will be responsible for meal expenses on Sapelo Island. Food for the class will be purchased together, and it is anticipated that the total meal cost for the weekend will be about \$15. A *non-refundable* \$20 deposit will be collected from each student several weeks prior to the Sapelo Island field trip. A complete fieldtrip schedule is provided with the course schedule.

Lecture examinations. Several lecture exams and quizzes will be given during the semester, at least one of these prior to midterm. Collectively, these exams and quizzes account for 30% of the course grade.

Field identification quizzes. The student will be required to recognize on sight in the field and to identify by *family name*, *genus name* and *common name* native and naturalized plants previously encountered on field trips, and the major plant communities. Field quizzes will be given spontaneously during class field trips, especially during the later half of the

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 *Manual of the Vascular Flora of the Carolinas*. 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 fieldtrips to LLFS. Also, photographs will be taken of selected species in the field using a digital camera, and digital images will be taken of the pressed voucher specimens. The latter will be used to construct a virtual herbarium of the flora of the LLFS. We will also quantitatively sample plant communities at LLFS and will incorporate the results of this effort into a description of the plant communities at the LLFS. The class project and plant collection accounts for 20% of the course grade.

Miscellaneous assignments. A number of miscellaneous course assignments will be given during the semester, which, collectively, account for 10% of the final course grade. Some will be graded pass/fail, some with letter grades, and some with numerical grades. Some will be completed in class, but most will be posted under Course Content in BlazeVIEW to be completed outside of class. In class/lab assessments are mostly unannounced and most cannot be made up.

Grading. A ten-point grading scale is used (i.e., A=90-100, B=80-89, C=70-79, D=60-69, F=<60). Grades will be determined as follows:

Attendance, participation & attitude	10%
Lecture exams	30%
Field identification quizzes	20%
Keying quizzes	10%
Class project & plant collection	20%
Misc. assignments	<u>10%</u>
TOTAL	100%

Class conduct. Students are expected to comport themselves courteously at all times during lecture and laboratory. Disruptive behavior will not be tolerated, and students behaving in a disruptive manner will be asked to relinquish their VSU student identification card and will be removed from class and referred to the Dean of Students for disciplinary action. Refer to Appendix A: Student Code of Conduct in the *VSU Student Handbook*, accessible through the following Internet address.

<http://www.valdosta.edu/studentaffairs/StudentHandbook.shtml>

Consumption of food or drink (including water) is prohibited in the lecture room. Students should be punctual for all scheduled lecture and laboratory meetings, and, except in situations of emergency, students should not depart from lecture before being dismissed. Students are to direct their full attention to lecture and are to refrain from unwarranted discourse. Behavior contrary to these guidelines is disruptive.

Use of cellular telephones, pagers, and other such devices. Use of cellular telephones, pagers, or any similar remote communication device is prohibited during scheduled lectures or examinations. If students bring cellular telephones or similar devices to lecture, it is their responsibility to switch them off prior to the beginning of the lecture period. Ringing, buzzing, or any other sounds emitted from such devices will be treated as disruptive behavior on the part of the owner/possessor, and the owner/possessor will be asked to leave lecture immediately.

Academic integrity. Students are encouraged to work together and to learn from one another in an appropriate manner. Cooperation between students is especially encouraged in study outside of class. However, students should bear in mind that most work ultimately must be done individually and independently.

All examinations and tests are given to students individually and are to be completed independently. Cooperation by students on tests or examinations is prohibited and constitutes cheating. Unless otherwise indicated, tests and examinations are taken strictly from memory without use of textbooks, notes, etc. Unless otherwise indicated, assignments and assessments are to be completed individually and independently. Behavior contrary to these guidelines is prohibited and constitutes cheating. Plagiarism and cheating will not be tolerated and will be prosecuted to the full extent allowed by University policy and the law.

Extra credit. Students may earn extra credit for volunteer work assisting in the Valdosta State University Herbarium. *Caveat:* Do not wait until the end of the semester to volunteer; by then, it might not be logistically possible.

Students with disabilities. Students requiring classroom accommodations or modifications because of documented disabilities should discuss this need with their professor at the beginning of the semester. Disabled students who are not registered with the Access Office for Students with Disabilities should contact the Access Office, Nevins Hall 1115, Telephone 245-2498.

Graduate credit. Graduate students will help coordinate and provide general assistance with the completion of the class project.

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 *italics*.

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

Labor Day Holiday – Mon., 05 Sept.
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
Field trip: Sat., 17 Sept., 8:00 AM – 6:00 PM, Arcadia Plantation and Greenwood Plantation, vic. Thomasville, GA

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
Midterm – Thurs., 06 Oct.
Field trip: Sat., 08 Oct., 8:00 AM – 8:00 PM, Doerun Pitcherplant Bog Natural Area, vic. Moultrie, GA

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

Fall Break – Mon. & Tues., 24-25 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
Weekend Field trip: Fri. – Sun., 11 – 13 Nov., UGAMI, Sapelo Island, GA; depart 11:30 AM Fri., return 8:30 PM Sun.

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
Thanksgiving Holiday: Wed. – Fri., 23-25 Nov.

Week 16: 28 November

Plant family survey
Lab: Field trip, Lake Louise FS

Mon., 05 Dec. – Last Day of Classes

FINAL EXAM: Wed., 07 Dec., 12:30 – 2:30 PM