

BIOL 3600/5600 – LOCAL FLORA**SPRING SEMESTER 2013**

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

Office Hours: BC 1040 or BC 1105
 Mon., 9:00 – 9:50 AM, 4:00 – 5:00 PM; Wed., 9:00 – 9:50 AM;
 other times by appointment

Weekly Lecture and Lab Schedule

Mon: Lec 8:00 – 8:50 AM, BC 1202
 Mon: Lab 12:00 – 2:50 PM, BC 2040
 Wed: Lec 8:00 – 8:50 AM, BC 1202
 Fri: Lec 8:00 – 8:50 AM, BC 1202

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 proficiency using analytical dichotomous keys in a regional floristic manual to identify unknown specimens.
- The student will be able to identify in the field common local native and naturalized plants by family and scientific 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
- *Common Trees of Central South Georgia* by W.R. Faircloth, VSC Printing Service, 1977

Supplementary References

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

Miscellaneous Required Items

- Pencils or pens for recording notes, etc.
- Spiral bound notebook convenient for field trips
- 200 3X5 inch notecards for field quizzes
- Handlens with lanyard may be purchased from the VSU Bookstore.
- In addition to the preceding items, it is the student's responsibility to bring the *Manual of the Vascular Flora of the Carolinas* and *Common Trees of Central South Georgia* to all lab sessions, including 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 under the Current Students tab on 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 3600/5600 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 reviewed the course syllabus and understand all course policies. If any of the course policies is unclear, it is the student's responsibility to confer with the instructor for clarification.

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, punctuality, participation and cooperation. Regular attendance, punctuality, participation and full cooperation 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 the field trip, 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 or lab 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. Providing 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, as detailed under Absence Regulations in the VSU Undergraduate Catalog.

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

Points will be deducted from the final course grade for unexcused tardiness or absence, and inadequate participation and cooperation.

Field trips. 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 field trips is absolutely critical for success in the course. In addition to insect repellent and water and other items listed previously, students should bring *Manual of the Vascular Flora of the Carolinas, Common Trees of Central South Georgia*, handlens, 3X5 note cards, and notebook on all field trips. In addition to the required field trips during the scheduled lab periods, two all day Saturday field trips and a weekend field trip to Sapelo Island are scheduled. Participation on the all-day Saturday field trips is optional, but strongly encouraged. *Participation on the Sapelo Island weekend field trip is a course requirement.* For the regular and Saturday field trips students should bring water, soft drinks, and food as needed. A special checklist of essential and recommended items will be provided for the weekend field trip 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 collectively, and it is anticipated that the total meal cost for the weekend will be about \$25. A *non-refundable* \$25 deposit will be collected from each student several weeks prior to the Sapelo Island field trip. A complete field trip schedule is provided with the course schedule.

Lecture examinations. Several lecture exams and tests will be given during the semester, at least one of these prior to midterm. Collectively, these exams and tests account for 35% of the course grade.

Keying tests. Several keying tests 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, using analytical dichotomous keys. It is imperative that the student attend lab and field trips regularly and practice identification of specimens in order to develop proficiency with these keys. Collectively, the keying tests account for 30% of the course grade.

Field quizzes. The student will be required to recognize and to identify in the field structural features of plants (e.g., type of leaf arrangement, features and types of leaves, flowers, and fruits); family names, binomials (properly formatted!), and common names of native and naturalized plants observed on field trips; and the major plant communities encountered. Field quizzes will be given spontaneously during regularly scheduled field trips and will be completed on 3X5 inch notecards. Collectively, the field quizzes account for 15% 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 trips 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 account for 10% of the course grade.

Miscellaneous assessments. A number of miscellaneous course assessments 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/lab, and some will be posted assignments under Course Content in BlazeVIEW to be completed outside of class. In class/lab assessments are mostly unannounced and most cannot be made up. Unless otherwise instructed, out of class assignments made through BlazeVIEW are due at the beginning of the first lecture period of the week *after* the week they are assigned. Unless otherwise instructed, hardcopy of these assignments shall be submitted with your name (first name and last name), course number and title (BIOL 3600 – Local Flora), and due date at the head of the first page, and formatted as follows: 12-point Times New Roman font, double-spaced throughout, and one-inch margins (top, bottom, left, and right). If there is more than one page, then the pages shall be stapled together with the staple in the upper left corner, and numbered sequentially starting with “1” and page numbers centered at the bottom of each page.

Grading. A ten-point grading scale is normally used (i.e.,

A=90-100, B=80-89, C=70-79, D=60-69, F=<60). The final course grade will be determined as follows:

Lecture exams	35%
Keying tests	30%
Field quizzes	15%
Class project & plant collection	10%
Misc. assessments	<u>10%</u>
TOTAL	100%

Meeting the minimum point requirement for a letter grade does not necessarily assure that the student will receive that grade. Assignment of the final grade is the prerogative of the instructor and will be based upon each individual student’s overall performance, including patterns of consistency, trends toward improvement, and positive attitude as shown through attendance, participation, and cooperation.

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 leave class or laboratory and will be 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 and the laboratory. 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.

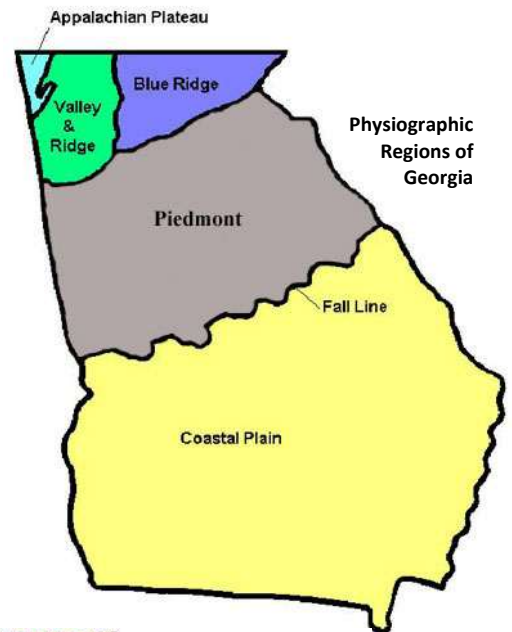
All examinations and tests are given to students individually and are to be completed independently. Cooperation by

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.

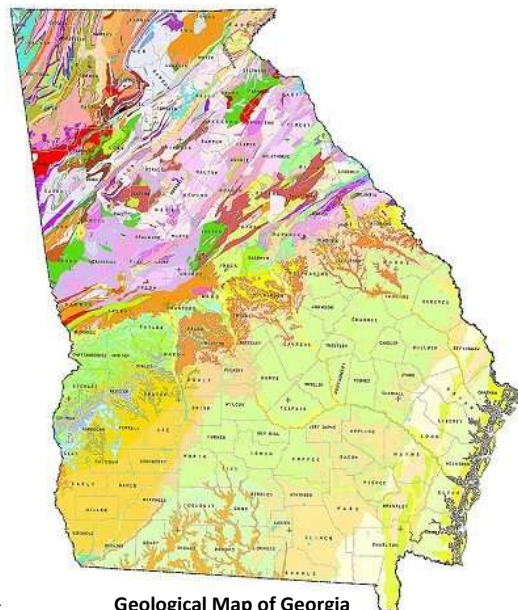
Extra credit. Students may earn extra credit for volunteer work assisting in the Valdosta State University Herbarium. *Caveat:* Do not wait until the end of the semester to volunteer; by then, it might not be logistically possible.

Students with disabilities. Students requiring classroom accommodations or modifications because of documented disabilities should discuss this need with their instructor 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, Farber Hall-South, Telephone 229-245-2498 (V/VP), 229-219-1348 (TTY).

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



Georgia's Coastal Barrier Islands



Geological Map of Georgia

COURSE SCHEDULE WITH LIST OF MAJOR TOPICS

SPRING SEMESTER 2013

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

Week 1: 07 January

Introduction
 Identification, classification, & nomenclature
 Structure & terminology: habit, roots & stems
Syllabus
 Lab: Botany Lab (BC 2040)

Week 2: 14 January

Structure & terminology: stems, leaves & surface features
 Preparation for field work
Biohazards in the field
 Lab: Botany Lab (BC 2040) & VSU Campus

Week 3: 21 January

Martin Luther King Holiday: Mon., 21 Jan.
 Structure & terminology: flowers & inflorescences
Diversity in leaf form: On-campus leaf collection
 Lab: No lab this week, because of holiday

Week 4: 28 January

Structure & terminology: fruits
 Using dichotomous keys in a floristic manual
 Lab: Field trip, Lake Louise FS

Week 5: 04 February

The herbarium
 Collection & care of voucher specimens
 Recording data & keeping a field notebook
Uses of the herbarium & floristic data
 Lab: Botany Lab (BC 2040)

Week 6: 11 February

Plant family survey: Pteridophytes, Gymnosperms,
 Magnoliids & Paleoherbs
 Lab: Field trip, Lake Louise FS

Week 7: 18 February

Plant family survey: Eudicots
 Lab: Botany Lab (BC 2040)

Week 8: 25 February

Plant family survey: Eudicots
 Lab: Field trip, Lake Louise FS
Midterm Date: Thurs., Feb. 28

Week 9: 04 March

Plant family survey: Eudicots
 Lab: Field trip, Lake Louise FS
Field trip: Sat., 09 Mar., 8:00 AM – 6:00 PM, Wolf Creek NA, Grady County, GA

Week 10: 11 March

Plant family survey: Eudicots
 Lab: Botany Lab (BC 2040)

Spring Break: Mon. – Fri., 18 – 22 Mar.

Week 11: 25 March

Plant family survey: Monocots
 Lab: Field trip, Lake Louise FS

Week 12: 01 April

Plant family survey: Monocots
 Lab: Botany Lab (BC 2040)
Weekend Field trip: Fri. – Sun., 05 – 07 Apr., UGAMI, Sapelo Island, GA; depart 11:30 AM Fri., return 8:30 PM Sun.

Week 13: 08 April

Vegetation & Phytogeography
Physiography & Flora
How do we classify the vegetation at Lake Louise?
 Lab: Field trip, Lake Louise FS

Week 14: 15 April

Rare, threatened, & endangered flora
 Non-indigenous flora
Survey of protected species
Alien invaders
 Lab: Botany Lab (BC 2040)
Field trip: Sat., 20 Apr., 8:00 AM – 8:00 PM, Doerun Pitcherplant Bog Natural Area, vic. Moultrie, GA

Week 15: 22 April

Poisonous plants
Poisonous plants
 Lab: Field trip, Lake Louise FS

Week 16: Mon., 29 Apr. – Last Day of Classes

Lab: Botany Lab (BC 2040)
FINAL EXAM: Wed., 01 May, 8:00 – 10:00 AM