

**BIOL 3600/5600 – LOCAL FLORA****SPRING SEMESTER 2019**

Instructor: Dr. Carter  
 Office: BC 1040 or BC 1105  
 Telephone: (229) 333-5763, ext. 5338  
 Office Hours: BC 1040 or BC 1105  
 Mon. & Wed., 12:00 – 12:50 PM; Thurs., 1:00 – 1:50 PM; other  
 times by appointment

*Weekly Lecture and Lab Schedule*

Mon	LecAB	10:00 – 10:50 AM, BC 1024
Wed	LecAB	10:00 – 10:50 AM, BC 1024
Thurs	LabA	2:00 – 4:50 PM, BC 2040
Fri	LecAB	10:00 – 10:50 AM, BC 1024
	LabB	11:00 AM – 1:50 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 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 demonstrate the ability to handle and analyze plant materials in the laboratory and in the field. [B1; V5, 7]
- The student will demonstrate proficiency using analytical dichotomous keys in a regional floristic manual to identify unknown specimens.
- The student will collect, document, and prepare herbarium specimens, using proper ethical standards, especially regarding rare, threatened or endangered species.
- 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. [V4, 7]
- The student will demonstrate the ability to access course resources and complete assignments on-line using computer technology (i.e., BlazeVIEW). [V3]
- The student will demonstrate the ability to complete assignments and tests ethically. [V8]

**Required Texts**

- *Manual of the Vascular Flora of the Carolinas* [RAB] by A.E. Radford, H.E. Ahles & C.R. Bell, University of North Carolina Press, 1968 [ISBN 978-0-8078-1087-3, HARDCOPY ONLY].
- *Guide to Flowering Plant Families* [FPF] by W.B. Zomlefer, University of North Carolina Press, 1995 [ISBN 978-0-8078-4470-0].

**Supplementary References**

- *Flora of the Southern and Mid-Atlantic States* [ASW] by A.S. Weakley. Univ. of North Carolina, North Carolina Botanical Garden, Chapel Hill, 2015 [freely available at [http://www.herbarium.unc.edu/FloraArchives/WeakleyFlora\\_2015-05-29.pdf](http://www.herbarium.unc.edu/FloraArchives/WeakleyFlora_2015-05-29.pdf)].
- *An Introduction to Plant Taxonomy* by Lawrence, 1955: Copies of this classic text may be checked out from your instructor.
- Other references and assigned readings will be provided electronically through BlazeVIEW.

**Miscellaneous Required Items**

- Pencils or pens for recording notes, etc.
- Spiral bound notebook convenient for field trips
- In addition to the preceding items, it is the student's responsibility to bring RAB and FPF 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 and water 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. 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 on the MyVSU page available through the Valdosta State University homepage. Students experiencing difficulties using BlazeVIEW should seek assistance through the VSU Information Technology HELP-Desk located in Odum Library.

**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 in the course syllabus and 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 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://catalog.valdosta.edu/undergraduate/academic-affairs/>  
*Points will be deducted from the final course grade for excessive unexcused absence or tardiness, and inadequate participation and cooperation.*

**Laboratory.** Most of the scheduled laboratory periods involve exercises that are to be completed indoors in the General Botany Laboratory (BC 2040) in order to develop descriptive, diagnostic, and analytical skills necessary to identify or "key out" unknown specimens using complex dichotomous keys in a regional floristic manual. The remaining laboratory periods involve field trips emphasizing identification of plant families and genera as components of communities in their natural habitats. Additional information about field trips can be found in the following section and on the separate field trip schedule provided by your instructor. Both required textbooks [RAB, FPF] will be used during lab, and students are required to bring them to each lab, including field trips.

**Field trips.** Field trips are an essential part of this course. Activities and assessments completed during field trips normally cannot be made up; therefore, attendance of all scheduled field trips is essential for success in the course. A few of the field trips requiring travel to remote sites will require student participation beyond the time scheduled for lab: These field trips are clearly indicated on the Field Trip Schedule, and students should make arrangements well in advance to attend. In addition to insect repellent and water and any other items listed previously, students should bring both textbooks, RAB and FPF, a notebook, and pencils and pens for taking notes on all field trips. Students should bring water, soft drinks (non-alcoholic!), and food as needed for field trips. Participation on the Sapelo Island weekend field trip is a course requirement. Any student who is unable to attend the Sapelo Island excursion, should clear this with the instructor as early as possible – well in advance of the scheduled trip – so an alternative assignment can be arranged. A checklist of essential and recommended items will be provided for the field trip to Sapelo Island. Lodging expenses at UGAMI on Sapelo Island will be paid by the Valdosta State University Foundation Price-Campbell Fund. However, students will be responsible for their meal expenses

while at 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, which will be used to purchase food. 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 40% of the final course grade.

**Keying tests.** Several keying tests will be given to measure proficiency using analytical dichotomous keys in the *Manual of the Vascular Flora of the Carolinas*. Substantial lab time will be devoted to supervised determination of unknown specimens using these keys. These keying exercises are an integral component of the course. They emphasize use of standard tools to dissect plant materials, critical observation and interpretation of plant structure, reinforcement and expansion of concepts related to plant structure, application of terminology related to plant structure, diagnosis and analysis, and application of analysis and diagnosis to identify unknown plants using dichotomous keys in a comprehensive floristic manual. It is essential 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 final course grade.

**Laboratory reports.** Students will be required to submit a number of written laboratory reports for work done during laboratory sessions, including field trips. The content, depth and length of these reports will depend on the nature of the activities and exercises completed during lab. These reports are due at the beginning of the scheduled lab period of the week immediately following the lab during which the exercise or activity was assigned. A penalty of at least one letter-grade will be assessed for any report submitted late, and a penalty of an additional letter-grade will be assessed for each additional day, beyond the due date, the report is late. Reports submitted after the end of the scheduled meeting they are due will be counted as submitted on the following day, including reports given directly to the instructor, slipped under the instructor's office door or the herbarium door, or left with a third party, or placed in the instructor's departmental mailbox. For example, if the due date is Wednesday and the report is submitted Wednesday after the period it was due, the grade will be reduced by at least one letter-grade; if the report is submitted after 5:00 PM Thursday, the grade will be reduced by at least two letter-grades; if the report is submitted after 5:00 PM Friday, the grade will be reduced by at least three letter-grades; etc. Saturday and Sunday do not counted in assessing the late-penalty.

During "keying labs" when students key out specimens using RAB, subsequently, after the conclusion of the lab, they are

required to check the names used for the keyed taxa in RAB against those in ASW, noting any differences in the Discussion section of the lab report and in proper citation of synonymy in any accompanying appendices with lists of taxa. ASW is available electronically on-line at no cost, the link provided on the course page in BlazeVIEW and in this syllabus. All reports shall be prepared according to the format detailed in the instructions and rubric provided by your instructor. Reports will be evaluated and graded based upon content and form, including completeness, accuracy, and clarity, according to the rubric provided by your instructor. Collectively, laboratory reports account for 10% of the final course grade.

**Miscellaneous assessments.** A number of miscellaneous course assessments and quizzes will be given during the semester, which, collectively, account for 10% of the final course grade. Some assessments be graded pass/fail, some with letter grades, and some with numerical grades. Those completed in class or during lab are mostly unannounced and most cannot be made up. Unless otherwise instructed, out-of-class assignments are due at the beginning of the lecture or laboratory period one week after 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. Penalties for late submissions will be assessed according to guidelines detailed under Laboratory Reports.

**Service learning.** Each student is required to participate in two citizen science service learning projects. The first service learning project will involve transcribing data from 100 plant specimen labels on-line through Notes from Nature. Instructions for the label transcription project will be posted on the course page in BlazeVIEW. The deadline for completing this label transcription project is the beginning of the lecture period on the Monday after Spring Break: Monday, March 25<sup>th</sup>. The second service learning project will be participation in the departmental BioBlitz at Grassy Pond Military Recreational Area on Friday and Saturday, April 12–13. Service learning accounts for 10% of the final course grade.

**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	40%
Keying tests	30%
Laboratory reports	10%
Misc. assessments	10%
Service learning	<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 demonstrated 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.

<https://www.valdosta.edu/administration/student-affairs/student-conduct-office/student-handbook.php>

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 unnecessary discourse. Behavior contrary to these guidelines is disruptive.

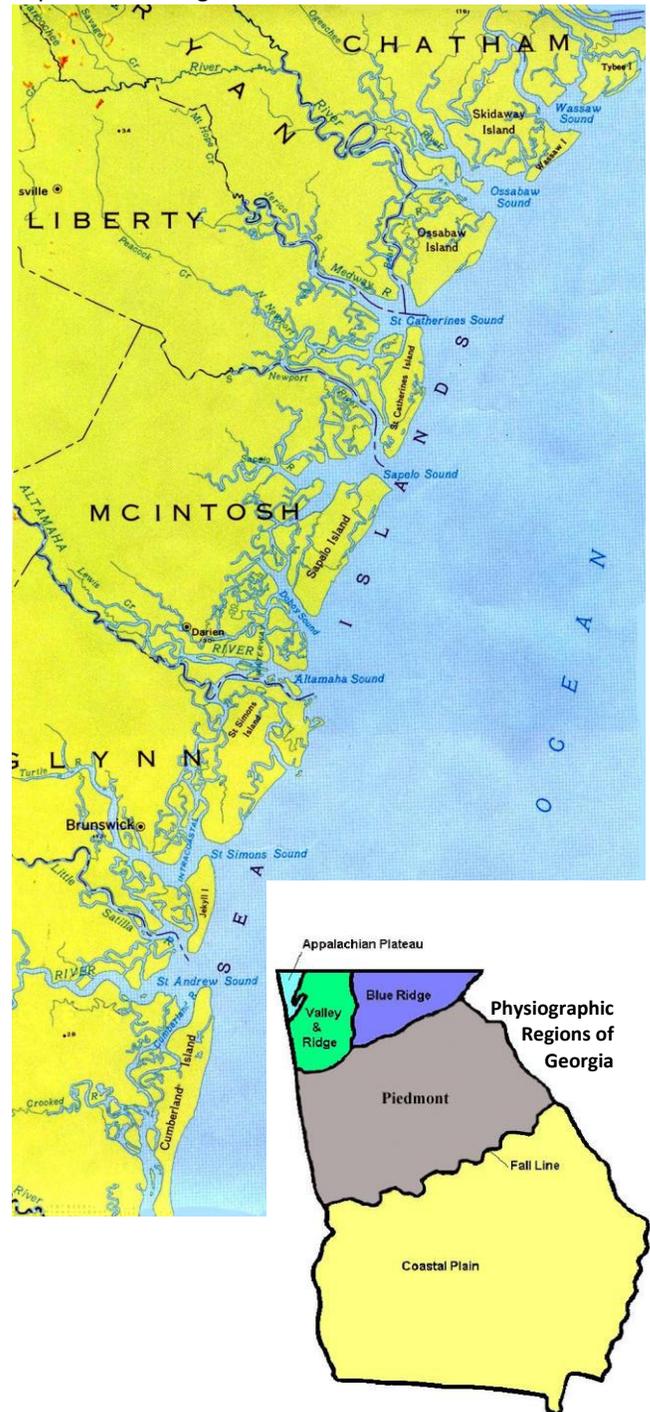
**Use of cellular telephones, pagers, and other such devices.** Use of cellular telephones, pagers, or any similar remote communication device is prohibited during scheduled lectures or examinations. If students bring cellular telephones or similar devices to lecture, it is their responsibility to switch 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.

**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.** At the beginning of the semester, graduate students should discuss with the instructor additional course requirements for graduate credit.



## COURSE SCHEDULE WITH LIST OF MAJOR TOPICS

SPRING SEMESTER 2019

Note: 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*. A separate schedule for course field trips will be provided.

## Week 1: 14 January

Introduction  
Preparation for Field Work: Biohazards in the Field  
Identification, Classification, & Nomenclature  
Structure & Terminology: Habit, Roots & Stems  
Lab: Botany Lab (BC 2040)

## Week 2: 21 January

*Martin Luther King Holiday: Mon., 21 Jan.*  
Structure & Terminology: Stems, Leaves & Surface Features  
Lab: Botany Lab (BC 2040) & VSU Campus

## Week 3: 28 January

Structure & Terminology: Flowers & Inflorescences  
Lab: Botany Lab (BC 2040)

## Week 4: 4 February

Structure & Terminology: Fruits  
Introduction to Plant Identification Using a Floristic Manual  
The Herbarium & Floristic Botany  
Voucher Specimens  
Lab: Botany Lab (BC 2040)

## Week 5: 11 February

Plant Family Survey: Pteridophytes & Gymnosperms  
Lab: Field Trip

## Week 6: 18 February

Plant Family Survey: ANA Grade & Magnoliids  
Lab: Botany Lab (BC 2040)

## Week 7: 25 February

Plant Family Survey: Eudicots  
Lab: Botany Lab (BC 2040)

## Week 8: 04 March

Plant Family Survey: Eudicots  
Lab: Field Trip  
*Midterm Date: Thurs., Mar. 07*

## Week 9: 11 March

Plant Family Survey: Eudicots  
Lab: Botany Lab (BC 2040)  
*Last day to withdraw without penalty: Thurs., Mar. 14*

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

## Week 10: 25 March

Plant Family Survey: Eudicots  
Lab: Botany Lab (BC 2040)

## Week 11: 01 April

Plant Family Survey: Eudicots  
Lab: Botany Lab (BC 2040)

## Week 12: 08 April

Plant Family Survey: Monocots  
*BioBlitz at Grassy Pond: Fri. & Sat., 12–13 April*

## Week 13: 15 April

Plant Family Survey: Monocots  
*Weekend Field Trip: Fri.–Sun., 19–21 Apr., UGAMI, Sapelo Island, GA; depart 10:00 AM Fri., return 9:00 PM Sun.*

## Week 14: 22 April

Plant Family Survey: Monocots  
Lab: Botany Lab (BC 2040)

## Week 15: 29 April

Rare, Threatened & Endangered flora  
Non-Indigenous Flora  
Lab: Field Trip

## Week 16: Mon., 06 May – Last Day of Classes

***FINAL EXAM: Tues., 07 May, 10:15 AM–12:15 PM***

**SECTION / DAY / DATE / TIME OF DEPARTURE / TIME OF RETURN / DESTINATION**

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A – Thurs., 14 Feb., **1:00 – 6:00 PM**: Wolf Creek NA, Grady County, GAB – Fri., 15 Feb., **11:00 AM – 4:00 PM**: Wolf Creek NA, Grady County, GA

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A – Thurs., 07 Mar., 2:00 AM – 5:00 PM: Lake Louise FS, Lowndes County, GA

B – Fri., 08 Mar., 11:00 AM – 2:00 PM: Lake Louise FS, Lowndes County, GA

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A&B – **Fri., 12 Apr., 12:00 PM – 5:00 PM**: BioBlitz, Grassy Pond, Lowndes County, GAA&B – **Sat., 13 Apr., 8:00 AM – 3:00 PM**: BioBlitz, Grassy Pond, Lowndes County, GA

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A&B – **Fri.–Sun., 19–21 Apr., depart, 10:00 AM Fri., 19 Apr., return 9:00 PM Sun., 16 Apr.:** UGAMI, Sapelo Island, GA

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A – Thurs., 02 May, **12:00 – 6:00 PM**: Doerun Pitcher Plant Bog NA, Colquitt County, GAB – Fri., 03 May, **11:00 AM – 5:00 PM**: Doerun Pitcher Plant Bog NA, Colquitt County, GA

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**Dates and times that deviate from the normal course schedule are in bold.**