Local Flora - BOT 3151C - Fall 2018

Meeting time: Thursdays, periods 3 - 8 (9:35 am - 1:40 pm) 3 credits

Rebecca Koll **Instructors:**

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Office hours: before class and by appointment

Description:

Local flora is a fun, field intensive course in which you'll be introduced to local Florida plant communities and ecosystems and learn to identify the plants within them. Get ready for immersion! The course has no official academic prerequisites, so students may come to the class having had no previous botany background. Local flora requires students to master some basic botanical concepts in order to do well. If you are a beginner, don't worry! All the botany you need to know will be taught as we go along. If you are more advanced, you will still find the course challenging. We make every effort to make the course valuable to everyone.

<u>Learning outcomes:</u> by the end of this course, you will be able to:

- 1) Identify ~140 species of local plants using morphological and habitat clues.
- 2) Identify unknown plants using a dichotomous key along with text and web resources.
- 3) Develop a systematic approach to identifying an unknown plant using knowledge about plant diversity, habitat, and vegetative morphology.
- 4) Describe connections between plant species and the local ecosystems in which they are found.
- 5) Compare and contrast fire regime and hydrological features of major local ecosystems.
- 6) Distinguish between these terms: native, endemic, introduced, and invasive.
- 7) Outline the geographical, geological, and historical influences on local plant communities.

Required equipment:

A 10x or 15x hand lens (available at UF Bookstore or online sources) A pair of pruning shears (available at hardware and gardening stores)

Optional recommended book and app:

University of North Carolina at Chapel Hill. 2018. FloraQuest 2. [Mobile application software.] Wunderlin, R. P. and Hansen, B.F. 2011. Guide to the Vascular Plants of Florida, 3rd Edition. University Press of Florida, Gainesville.

Your course grades will be determined based on:

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|---|------------|---------------------|
| 1) 6 regular plant quizzes @ 60 points each | 360 points | \geq 90 – 100 = A |
| 2) 1 written end of semester test | 100 | ≥80 - < 90 = B |
| 3) 2 key exercises @ 30 points each | 60 | > 70 - < 80 = C |
| 4) 1 Final plant quiz @ 120 points | <u>120</u> | ≥ 60 - < 70 = D |
| TOTAL | 640 | < 60 = E |

<u>Description of the components of your grade:</u>

1) Plant quizzes. These quizzes test your knowledge of the plant species we've learned on field trips. You'll be expected to identify the species using freshly cut specimens or living specimens in the field. Each plant quiz is cumulative. Only Latin binomial plant names will be accepted: Correct genus name = 2 pts. Correct species (genus name plus specific epithet) = 3pts. No credit will be given for common names.

- **2) End of semester test..** The test is on new material presented in the field, in lecture, and on your reading assignments. The end of semester test is **open notes**.
- **3) Key exercises.** During class time, we'll use keys to identify unknown plants, and build our own keys to plants.
- **4) Final plant quiz.** This is the cumulative quiz testing your identification skills for all plant species learned in the course.

Field trips:

We will take seven field trips to visit many different types of plant communities. We will be studying the local plant life right in the places where the plants grow, and you will be learning basic techniques of field botany. On these field trips, you'll collect and learn to identify the plants upon which you'll be quizzed. You'll also get a chance to look at the plant communities we've been learning about, and have a lot of fun seeing other creatures, too.

Bring to the field trips: clippers, bags for collecting plants, clipboard or notebook, water to drink, and snacks/lunch. (Cameras can be very helpful, too.)

Dress appropriately. Wear long pants and old shoes. Sandals are not recommended. Be prepared for normal Florida conditions (i.e. heat, sun, mosquitoes, poison ivy, rattlesnakes, ticks, rain, alligators, etc.) and expect sometimes to get your feet wet.

Field trips will not be cancelled due to weather.

Specimen collection – On our field trips, each student will be encouraged to collect a small specimen of each plant species we cover for the course. You will be shown how to press and dry your specimens so that they will remain in good condition for the duration of the semester. These specimens will be your most important study aid. You should bring clippers or scissors and a bag for specimens (a plastic grocery bag will do) with you on every field trip.

Attendance policy:

Attendance is required for success in this course. It is intensive and cumulative – skipping class will leave you with a big chunk of missing information in your notes and collections. Don't miss class.

Make up policy:

Field trips **CANNOT** be made up. Quizzes and the end of semester test **CANNOT** be made up except for legitimately documented excused absences. You have one free pass on the plant quizzes – only 6 out of 7 will be counted toward your grade, with the lowest quiz score dropped.

Academic honesty policy:

All students registered at the University of Florida have agreed to comply with the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at:

https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx

University grade policies:

For additional important information regarding UF's grade policies, please see: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Students with disabilities:

Students requesting classroom accommodation must first register with the Disabilities Resource Center. This office will provide documentation to the student, who must then provide this documentation to the instructor when requesting accommodation.

Some additional resources:

http://www.plantatlas.usf.edu/ - <u>Florida Plant Atlas</u> - a good resource for photographs and range maps of Florida plants.

http://www.fnai.org/ - <u>Florida Native Areas Inventory</u> - a great source of data, maps and info on plant communities, rare species and conservation lands in Florida.

http://www.fs.fed.us/database/feis/plants/index.html – <u>USDA Forest Service Fire Effects Data</u> - lots of general information about fire effects on species we cover in class. Easy to look up.

http://www.flmnh.ufl.edu/natsci/herbarium/ - <u>University of Florida Herbarium</u> - all kinds of info on Florida plants and collecting, including a database of images and specimens stored in the herbarium.

http://www.virtualherbarium.org/ - Fairchild Tropical Garden Herbarium Virtual Herbarium.

Course schedule – subject to change. We will notify you as soon as possible regarding any modifications to this schedule.

| Meeting | Agenda | Meeting place | Homework assigned: |
|---------|--|------------------------|---|
| Jan 10 | Introduction and syllabus Lecture: Plant diversity and taxonomy, determining factors of local flora, endemism, and Florida plant communities | Rolfs 315 | |
| Jan 17 | Practice field trip on campus – vegetative characteristics and plant press demo | Rolfs 315 | Study for Quiz 1 on practice field trip |
| Jan 24 | Quiz 1 Field trip 1: Gold Head Branch State Park (part 1) | Behind Bartram-Carr | Study for Quiz 2 on trips 1 – 2 |
| Jan 31 | Quiz 2 Field trip 2: Austin Cary Forest | Behind Bartram-Carr | Study for Quiz 3 on trips 1 – 3 |
| Feb 7 | Quiz 3 Field trip 3: Cedar Key Scrub State Preserve | Behind Bartram-Carr | Study for Quiz 4 on trips 1 – 3 |
| Feb 14 | Quiz 4 Key exercise 1 | Rolfs 315 | |
| Feb 21 | Field trip 4: Gold Head Branch State Park (part 2) | Behind Bartram-Carr | Study for Quiz 5 on trips 1 – 4 |
| Feb 28 | Quiz 5 Field trip 5: Alfred Ring Park | Behind Bartram-Carr | Study for Quiz 6 on trips 1 – 5 |
| Mar 7 | NO CLASS - SPRING BREAK | | |
| Mar 14 | Quiz 6 Field trip 6: Suwannee River | Behind Bartram-Carr | Study for Quiz 7 on trips 1 -6 |

| Mar 21 | Quiz 7 Key exercise 2 | Rolfs 315 | |
|--------|--|------------------------|--|
| Mar 28 | TBA - either optional weekend trip to Seahorse Key Marine Lab or Field trip 7: Anastasia State Park | Behind Bartram-Carr | |
| Apr 4 | TBA - either optional weekend trip to Seahorse Key Marine Lab or Field trip 7: Anastasia State Park | Behind Bartram-Carr | Study for final plant quiz |
| Apr 11 | Final plant quiz | Rolfs 315 | Study for test, read and prepare notes |
| Apr 18 | End of semester test | Rolfs 315 | Enjoy your summer break! |