

Syllabus version: 12/22/2021 (details are subject to change)

Course number/name:

PCB 4460 (29496), Biodiversity and Ecology Field Immersion, 4 credits
Section: 0287, Field Ecology & Data Analysis

Credit hours: 4

Instructor: Jeremy Lichstein

Office hours: Mondays and Wednesdays or by appointment

Course Website: Canvas (<https://elearning.ufl.edu/>)

Canvas Mail is preferred for all course-related e-mails.

Course description

In this course, we will learn about local pine and hardwood forests and how they are changing. We will spend the majority of our class time on field trips in and around the Gainesville area, including the Natural Area Teaching Laboratory (NATL) on the main UF campus, San Felasco Hammock Preserve State Park, and UF's Ordway-Swisher Biological Station (OSBS). We will collect data on forest structure, tree species composition, and how gopher tortoise burrows interact with the surrounding vegetation. We will also observe a prescribed burn at OSBS and study the role of fire in restoring and maintaining the endangered longleaf pine ecosystem. In addition to field trips, an important learning objective of this course is to develop data analysis skills using the R software package. R is the most widely-used toolset for statistics and other quantitative analyses in ecology and many other fields of science. An introduction to R is essential for students who are interested in honing their research skills.

Meeting times and locations:

We will meet all or most weekdays during Immersion Session 1 (Jan 5 – Feb 8, 2022). Most weeks, we will have two data analysis (classroom) meetings (Mon and Wed) and three field trips (Tues, Thurs, Fri). But the schedule is not fixed, and may change due to weather or scheduling issues. See the course website for the current, updated schedule.

Classroom meetings will typically be Mon and Wed, 9:45-12:30 in 521 Carr Hall. Some of the M/W classroom meetings may be replaced by field trips, so be sure to check the schedule on the course website.

The meeting location for field trips will either be:

- UF Natural Area Teaching Laboratory (NATL; <https://natl.ifas.ufl.edu/>). Students should provide their own transportation to NATL. We will meet near the Pavilion on Natural Area Drive. Please refer to the map near the bottom of the NATL homepage (<https://natl.ifas.ufl.edu/>). The 'click here for directions' link (just below the map) provides info on bus routes and parking for bikes and motorized vehicles. Typing the following into google maps should get you to the Pavilion: "NATL Pavilion, Natural Area Drive, Gainesville, FL".
- The loading zone behind Bartram Hall, which can be accessed from the Bartram basement. We will use this meeting place to depart by van for off-campus field trips.

The meeting time will depend on the destination and will be posted on the course website.

Logistics, health, and safety

- You must be cleared by UF to be on campus and to attend field trips.
- If you feel ill or have COVID-19 symptoms or exposure, please stay at home. Do not come to class or attend field trips. You will not be penalized for missing class due to illness or potential COVID exposure.

- A tight-fitting mask over your nose and mouth are expected in campus buildings and while in vans.
- Field attire: You must wear closed-toe shoes (no flip-flops). Check the weather report and be prepared for cold/rain. We will work off-trail, sometimes in thick, thorny vegetation. Wear long pants that are comfortable and durable.
- There are no bathrooms at most field sites we will visit. Try to take care of serious business before the field trip, and be prepared to go in the woods as needed.
- Bring water and food. No meals are provided.
- Bring a notebook and pen/pencil. 'Rite in the Rain' notebooks are recommended (but not required), as they are much more durable than standard paper notebooks. They come in different sizes and different line patterns. The 4 5/8 by 7 inch size is a popular choice among field ecologists. You do not need a weatherproof pen. A normal pencil is fine (ball-point pens do not work well on 'Rite in the Rain' paper).

Required Materials

- R Studio. Instructions to install this free software will be provided through the course website. You do not need to install the software until instructions are provided
- Microsoft Office. Free to UF students. Make sure Word and Excel work. Contact the UF Computing Help Desk (<https://helpdesk.ufl.edu/>) if you have problems.
- Compass for navigating in the field and locating mapped trees. A compass app on your phone will suffice, although a magnetic compass is recommended. You can get one for about \$10 from online stores. Compasses with mirrors or other sighting mechanisms typically cost \$40 or more; these are not needed for our course. A simple compass (marketed for 'orienteeing' or 'backpacking') will suffice. It should have a rotating bezel that allows you to align the north arrow with a specified bearing.

Recommended Materials

A field guide to tree identification is recommended, but not required. Field guides that use drawings are usually easier to interpret than those based on photos. Some good options:

- Peterson Field Guide to Eastern Trees (ISBN-10: 0395904552; ISBN-13: 978-0395904558). This paperback book costs about \$20 and is a convenient size to carry in the field.
- Sibley Guide to Trees (ISBN-10: 037541519X; ISBN-13: 978-0375415197). This book is bigger and a bit more expensive than the Peterson guide. It is an excellent reference, though a bit heavy to carry around.

Assignments (homework and in-class)

Unless stated otherwise: (1) homework is due before class; and (2) you are encouraged to discuss and work with other students, but the work you turn in should be your own work and should reflect your own understanding of the material. Avoid direct quotes. It is almost always better to write in your own words. If you feel you must quote from a source, be sure to use quotation marks and to cite your source.

You are expected to submit all homework and in-class assignments. If you know ahead of time that you will not be able to submit a homework assignment on time, contact the instructor. Homework cannot be submitted late except under special circumstances, such as a documented illness or other circumstance for which the instructor grants an extension.

Grade distribution

Your final semester percent grade will be the percent of points earned out of the total possible. Points are distributed roughly as follows:

- **Class participation (~200 total points):** Full-day field trips are worth 10 participation points, and shorter meetings (e.g., 2-3 hour classroom meetings) are worth ~5 points depending on the length of the meeting. Points are deducted for being late, unprepared, lack of full participation, etc. Unexcused absences earn 0 zero points.
- **Assignments (~100 total points):** The point value for each assignment will be stated in the instructions for that assignment.

Grade scale

A ≥ 92.5%; A- ≥ 89.5%; B+ ≥ 86.5%; B ≥ 82.5%; B- ≥ 79.5%; C+ ≥ 76.5%; C ≥ 72.5%; C- ≥ 69.5%; D+ ≥ 66.5%; D ≥ 59.5%; D- ≥ 56.5%; E < 56.5%

Grades will not be rounded; e.g., 89.50 is an A-, and 89.49 is a B+.

Absences

Please notify the instructor ahead of time if you plan to miss class. Unexcused absences will result in a zero participation grade. Absences will be excused according to standard UF policies (illness, religious holidays, etc.) and for academic and career-related reasons (attending conferences, job interviews, etc.). If you like, you are welcome to schedule a meeting with the instructor to discuss absences. But you should ***always send a written explanation by e-mail to document an excused absence.***

UF policies and resources

In addition to the course-specific information provided above, UF policies and resources are described below. If you feel that any of the course-specific information above is inconsistent with UF policies, please contact the instructor. The resources described below include resources related to student health and well-being. Please familiarize yourself with these resources. Doing well in this class, and in college in general, will require that you take care of your mental and physical well-being.

Attendance and make-ups

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Accommodations

Students who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at gatorevals.aa.ufl.edu/public-results/.

Academic Integrity

“UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honorcode/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Resources Available to Students***Health and Wellness***

- *U Matter, We Care*: umatter@ufl.edu; 392-1575
- *Counseling and Wellness Center*: <http://www.counseling.ufl.edu/cwc/Default.aspx>; 392-1575
- *Sexual Assault Recovery Services (SARS)*: Student Health Care Center; 392-1161
- *University Police Department*: <http://www.police.ufl.edu/>; 392-1111 (911 for emergencies)

Academic Resources

- *E-learning technical support*: Learningsupport@ufl.edu; <https://lss.at.ufl.edu/help.shtml>; 352-392-4357 (opt. 2)
- *Career Resource Center*: Reitz Union; <http://www.crc.ufl.edu/>; 392-1601
- *Library Support*: <http://cms.uflib.ufl.edu/ask>
- *Teaching Center*: Broward Hall; 392-2010 or 392-6420
- *Writing Studio*: 302 Tigert Hall; <http://writing.ufl.edu/writing-studio/>; 846-1138

Procedure for Conflict Resolution

Any classroom issues, disagreements or grade disputes should be discussed first between the instructor and the student. If the problem cannot be resolved, please contact the Undergraduate Coordinator or the Department Chair. Be prepared to provide documentation of the problem, as well as all graded materials for the semester. Issues that cannot be resolved departmentally will be referred to the University Ombuds Office (<http://www.ombuds.ufl.edu>; 392-1308) or the Dean of Students Office (<http://www.dso.ufl.edu>; 392-1261). For further information refer to https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf (for residential classes) or <http://www.distance.ufl.edu/student-complaintprocess> (for online classes).