Insect Ecology Lab ENY 6203L, Fall 2021, 1 credit

Delivery: face-to-face and asynchronous **Lab:** Wednesday, 1:55-3:50pm, Room 3118

Instructor: Phil Hahn, office: Steinmetz 2109, phone: (352) 273-3960, email: hahnp@ufl.edu,

zoom meeting room: https://ufl.zoom.us/j/7044620919

Office Hours: One hour after lecture or email to arrange a time. All meetings will occur via Zoom (https://ufl.zoom.us/j/7044620919).

Meetings: If you are on campus in Gainesville you are expected to attend in person. Online students will complete the lab asynchronously.

Course Description: This course is an introduction to ecological methods and analysis with emphasis on insects. Methods to explore relationships of insects with their biotic and physical environments, along with the roles of insects in nature, will be emphasized. The basics of ecological research will be covered.

Learning Outcomes:

By the end of this course, students will be able to:

- Explain fundamental ecological principles in population, community, landscape, and ecosystem ecology using insects as examples
- Evaluate and critique primary ecological literature for content and scientific quality
- Employ field sampling and quantitative techniques commonly used by ecologists
- Develop ecological questions and hypotheses
- Create, manage, and analyze ecological datasets

Prerequisites:

ENY 3005, Principles of Entomology, or equivalent

Required Materials:

- R software: available for free download at r-project.org
- R Studio: helpful alternative to the default R graphical user interface
- Tidyverse: a collection of user-friendly R packages designed for data science that share an underlying design philosophy, grammar, and data structures.

Attendance and Make-Up Work: Students are expected to attend all sessions in person. Online students are expected to watch the videos and complete the exercises posted to Canvas. Please contact the instructor in advance if you plan to miss a class. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Structure of the Course

Lab sections will typically be spent using techniques and quantitative tools to apply concepts covered in lecture. We will use a combination of quantitative models in the coding program R,

collecting insects and data in the field, entering and analyzing ecological data, and presenting the findings to peers through writing and presenting.

Assessment & Evaluation

Critique of scientific paper- During the first week we will read and discuss a scientific paper. Students will write a short critique of the paper.

Worksheets- Three labs will have worksheet assignments to complete and submit via canvas.

Herbivory lab- The herbivory lab will have three assignments, 1) an initial proposal that will be in the form of a short video shot from the field where you measure herbivory, 2) a write-up in the form of a scientific paper, and 3) a revised paper that addresses the instructor's comments in the form of a peer-reviewed article.

Community ecology lab- There will be presentations based on the results of sampling of insect communities.

Available Points

Category	Points	Percent of grade	Due date
Critique scientific paper	50	10%	Aug 30 th
Worksheet 1	50	10%	Sept 1 st
Worksheet 2	50	10%	Sept 8 th
Worksheet 3	50	10%	Oct 13 th
Herbivory lab proposal	50	10%	Sept 15 th
Herbivory lab write-up (final)	100	20%	Oct 20 th
Herbivory lab write-up (revisions)	50	10%	Nov 23 rd
Community ecology lab presentation	100	20%	Dec 1-8
Total	500		

Final Grade

Scale: percentage	Letter grade	Minimum points required	
93-100	A	465	
90-92.99	A-	450	
87-89.99	B+	435	
83-86.99	В	415	
80-82.99	B-	400	
77-79.99	C+	385	
73-76.99	С	365	
70-72.99	C-	350	
60-69.99	D	300	
0-59.99	Е	≤ 299	

Weekly Course S	chedule
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Week	Date	Lab Module	Lab Topic	Lab Assessment	Lab activity
1	24-Aug	1	Critique scientific paper	Critique write-up	Scientific paper
2	31-Aug	2	Population modeling	Worksheet 1	Exponential growth
3	7-Sep	2	Population modeling	Worksheet 2	Logistic growth
4	14-Sep	3	Herbivory lab	Proposal	Herbivory planning
5	21-Sep	3	Herbivory lab		Herbivory surveys
6	28-Sep	3	Herbivory lab		Herbivory surveys/data entry
7	5-Oct	3	Herbivory lab		Herbivory data analysis
8	12-Oct	4	Predator prey lab	Worksheet 3	Functional responses
9	19-Oct	5	Community lab	Herbivory paper	Community lab prep/samplings
10	26-Oct	5	Community lab		Community lab sampling
11	2-Nov	5	Community lab		Community lab data processing
12	9-Nov	5	Community lab		Community lab data processing
13	16-Nov	5	Community lab		Community lab data processing
14	24-Nov		NO LAB - holiday	Paper revisions	
15	1-Dec	5		Present	Community group presentations
16	8-Dec	5		Present	Community group presentations

Grades and Grade Points: More information on UF grading policy may be found at: <u>UF Graduate Catalog</u> Grades and Grading Policies

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. 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 here.

University Honesty Policy: 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 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.

Online recording policy: Our class sessions will be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Software Use: All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the <u>Notification to Students of FERPA</u> Rights.

Statement of diversity, equity, and inclusion: It is my goal that students from diverse backgrounds, as well as differences in learning styles and personality, will be welcomed and well served in this course. My definition of diversity includes race, ethnicity, gender, sexual orientation, physical ability, cultural, academic or economic background. I plan to present the material in such a way that it is accessible and relatable to all students. I encourage you to contact me if you have suggestions for how I can improve upon this goal. It is also expected that students will treat each other with respect and no harassment of any kind will be allowed. To report harassment, inappropriate behavior, or discuss issues with a neutral party, please contact the UF <u>RESPECT Team</u>.

Students Requiring Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. 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.

Student Feedback and Complaints:

I am always interested to hear feedback from students on how to improve this course. The goal, overall, is for students to get as much out of this course as possible. Please contact me with any thoughts or comments you have that might improve the course. When possible, I will incorporate

this feedback immediately. Other times, changes may be implemented to improve future versions of this course. To register formal complaints, please refer to the following:

• Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/

• Online Course: https://distance.ufl.edu/getting-help/

In-Class Recording Policy:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact <u>umatter@ufl.edu</u> or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <u>counseling.ufl.edu/cwc</u>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

<u>Career Resource Center</u>, Reitz Union, 392-1601. Career assistance and counseling.

<u>Library Support</u>, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints