Cover Sheet: Request 16069

ENY 4XXX Insect Ecology

Info	
Process	Course New Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Philip Hahn hahnp@ufl.edu
Created	4/7/2021 2:52:09 PM
Updated	9/12/2021 11:33:04 AM
Description of	I am requesting to offer a new course, ENY4xxx Insect Ecology. A graduate version of this course
request	is currently offered (ENY6203). There is a lab associated with the course, for which I will be
	requesting a separate new course ENY4xxxL.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Entomology and Nematology 60140000	Heather Mcauslane		4/7/2021
ENY6203 Inse ENY4xxx CALS	ct Ecology_F S CC Checkli	21.docx st.pdf			4/7/2021 4/7/2021
College	Approved	CALS - College of Agricultural and Life Sciences	Joel H Brendemuhl	Requested edits by the CALS CC have been addressed.	6/2/2021
No document c	hanges				
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			6/2/2021
No document o	hanges				
Statewide Course Numbering System					
No document o	hanges				
Office of the Registrar					
No document of	hanges			-	
Catalog					
No document o	hanges				
Student Academic Support System					
No document c	hanges				
College Notified					
No document c	hanges				

Course|New for request 16069

Info

Request: ENY 4XXX Insect Ecology Description of request: I am requesting to offer a new course, ENY4xxx Insect Ecology. A graduate version of this course is currently offered (ENY6203). There is a lab associated with the course, for which I will be requesting a separate new course ENY4xxxL. Submitter: Joel H Brendemuhl brendj@ufl.edu Created: 6/2/2021 3:08:44 PM Form version: 3

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, the State Common Numbering System (SCNS) may assign a different prefix.

Response: ENY

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.). Note: 5000 level courses must be submitted through the undergraduate new course process

Response:

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Course Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response: xxx

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response: Advanced

- 1000 level = Introductory undergraduate
- 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate
- 4000/5000= Joint undergraduate/graduate
- 4000/6000= Joint undergraduate/graduate

*Joint undergraduate/graduate courses must be approved by the UCC and the Graduate Council)

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response: None

Course Title

Enter the title of the course as it should appear in the Academic Catalog. There is a 100 character limit for course titles.

Response: Insect Ecology

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 30 characters (including spaces and punctuation).

Response: Insect Ecology

Degree Type

Select the type of degree program for which this course is intended.

Response: Baccalaureate

Delivery Method(s) Indicate all platforms through which the course is currently planned to be delivered.

Response: On-Campus

Co-Listing

Will this course be jointly taught to undergraduate, graduate, and/or professional students?

Response: Yes

Co-Listing Explanation

Please detail how coursework differs for undergraduate, graduate, and/or professional students. Additionally, please upload a copy of both the undergraduate and graduate syllabus to the request in .pdf format. For more information please see the <u>Co-Listed Graduate Undergraduate Courses Policy</u>.

Response:

Difference in learning objectives and assessments between ENY4xxx and the current graduatelevel offering ENY6203

• Graduate students have one additional learning objective: Synthesize and communicate scientific results to an audience

• Graduate students will deliver a presentation and lead discussion for one of the weekly discussion readings. 100 points.

• All students will write a blog post summarizing a paper of their choosing. Undergraduate posts will be shorter (400-600 words, 50 points) than graduate students (700-800 words, 100 points).

• Total points for undergraduates = 530 and graduate students = 680. Points for graduate students is 28% greater than for undergraduates.

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response: Earliest Available

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response: Earliest Available

Rotating Topic?

Select "Yes" if the course can have rotating (varying) topics. These course titles can vary by topic in the Schedule of Courses.

Response: No

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. If the course will also have rotating topics, be sure to indicate this in the question above.

Response: No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as either letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response: No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response: Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Weekly Contact Hours

Indicate the number of hours instructors will have contact with students each week on average throughout the duration of the course.

Response: 3

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 500 characters or less. See course description guidelines.

Response:

This course is an introduction to ecological concepts with emphasis on insects. The 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.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

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Courses level 3000 and above must have a prerequisite. Please verify that any prerequisite courses listed are active courses.

Response: BSC 2005(C) or BSC 2010(C)

Completing Prerequisites on UCC forms:

• Use "&" and "or" to conjoin multiple requirements; do not used commas, semicolons, etc.

• Use parentheses to specify groupings in multiple requirements.

• Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.

• Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).

• "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

• If the course prerequisite should list a specific major and/or minor, please provide the plan code for that major/minor (e.g., undergraduate Chemistry major = CHY_BS, undergraduate Disabilities in Society minor = DIS_UMN)

Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and undergraduate PBH student should be written as follows: HSC 3502(C) & (HSC 3057 or HSC 4558) & UGPBH & & nbsp;

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system. If there are none please enter N/A.

Response: ENY4xxxL. Lecture and lab sections should be taken together.

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

The course will broaden undergraduate offerings in ecology and will be the only ecology course covering basic ecological principles across all major subdisciplines of ecology (evolutionary, population, community, landscape, and ecosystems).

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

• Explain fundamental ecological principles in population, community, landscape, and ecosystem ecology using insects as examples

• Describe the theoretical underpinning for understanding the causes and consequences of how insects interact with other species

- Translate ecological literature into lay public-accessible scientific news
- Apply fundamental ecological principles underlying the development and application of insect pest management and insect conservation
- Evaluate and critique primary ecological literature for content and scientific quality

Course Textbook(s) and/or Other Assigned Reading

Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned. Please provide specific examples to evaluate the course and identify required textbooks.

Response:

Speight, M.R., M.D. Hunter and A.D. Watt. 2008. Ecology of Insects: Concepts and Applications. 2nd ed. Wiley-Blackwell.

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Re	sponse:			
₩e 1 2 3	ek 23-Aug 30-Aug 6-Sep	Date 1 2 3	Lecture module Lecture Topic Lecture Asses Overview of Insect Ecology Insects and climate Life history strategies (Monday holiday)	sment
4	13-Sep	4	Resource niche and competition	
5 6	20-Sep 27-Sep	5 5	Plant-herbivore interactions I EXAM 1 Plant-herbivore interactions II	
7	4-Oct	6	Mutualisms (Friday Homecoming)	
8	11-Oct	7	Predator-prey interactions I	
9	18-Oct	7	Predator-prey interactions II News blog	
10	25-Oct	8	Community ecology I EXAM 2	
11	1-Nov	8	Community ecology II	
12	8-Nov	8	Landscape ecology I (Blog responses)	
13	15-Nov	9	Landscape ecology II	
14	22-Nov	9	Ecosystem ecology I (Wed & Fri holidayNo Di	scussion)
15 16	29-Nov 6-Dec	10	Ecosystem ecology II	

Wrap-up and review FINAL EXAM

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity. Include details about the grading rubric and percentage breakdowns for determining grades. If participation and/or attendance are part of the students grade, please provide a rubric or details regarding how those items will be assessed.

Response: Available points Category Points Percent of grade Discussion participation (14 total, 10 points per discussion) 140 26% Insect Ecology in the News Blog Post 50 9% Insect Ecology in the News (responses, 4 total) 40 8% 100 19% Exam 1 Exam 2 100 19% Exam 3 100 19% Total 530

Undergraduate students are expected to participate in discussing the papers but will not be responsible for leading a presentation. For participation points, all students will be expected to answer general questions about the paper and be prepared to share their answers. Discussion points will be awarded for sharing an answer to one of these questions. (See Appendix A in attached syllabus for additional instructions to the students).

See Appendix B in the attached syllabus for instructions and rubric for the New Blog assignments.

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response: Philip G Hahn

Attendance & Make-up

Please confirm that you have read and understand the University of Florida Attendance policy. A required statement statement related to class attendance, make-up exams and other work will be included in the syllabus and adhered to in the course. Courses may not have any policies which conflict with the University of Florida policy. The following statement may be used directly in the syllabus.

• Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Response: Yes

Accomodations

Please confirm that you have read and understand the University of Florida Accommodations policy. A statement related to accommodations for students with disabilities will be included in the syllabus and adhered to in the course. The following statement may be used directly in the syllabus:

• Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <u>www.dso.ufl.edu/drc/</u>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Response: Yes

UF Grading Policies for assigning Grade Points

Please confirm that you have read and understand the University of Florida Grading policies. Information on current UF grading policies for assigning grade points is require to be included in the course syllabus. The following link may be used directly in the syllabus:

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Response: Yes

Course Evaluation Policy

Course Evaluation Policy Please confirm that you have read and understand the University of Florida Course Evaluation Policy. A statement related to course evaluations will be included in the syllabus. The following statement may be used directly in the syllabus:

• 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 <u>https://gatorevals.aa.ufl.edu/public-results/</u>. 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 https://ufl.bluera.com/ufl/" target="_blank">https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at <a href="https://gatorevals.aa.ufl.edu/public-results/.

Response: Yes

Insect Ecology Lecture ENY 6203, Fall 2021, 3 credit

Delivery: face-to-face, online synchronous, online asynchronous Lecture time and location : MWF, 9:35-10:25am, Steinmetz 1027 Zoom: add link when available

Instructor: Phil Hahn, office: Steinmetz 2109, phone: (352) 273-3960, email: <u>hahnp@ufl.edu</u>, zoom meeting room: <u>https://ufl.zoom.us/j/7044620919</u>

Office Hours: After lecture or email to arrange a time. All meetings will occur in my office or via Zoom (<u>https://ufl.zoom.us/j/7044620919</u>).

Lecture: All Gainesville students are expected to attend in person. Online students can join synchronously via zoom or view the recorded lecture asynchronously. All lectures will be recorded and posted on Canvas within 24 hours.

Course Description: This course is an introduction to ecological concepts with emphasis on insects. The 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
- Describe the theoretical underpinning for understanding the causes and consequences of how insects interact with other species
- Translate ecological literature into lay public-accessible scientific news
- Apply fundamental ecological principles underlying the development and application of insect pest management and insect conservation
- Evaluate and critique primary ecological literature for content and scientific quality
- Synthesize and communicate scientific results to an audience

Prerequisites:

ENY 3005, Principles of Entomology, or equivalent

Required Materials:

Lecture: Speight, M.R., M.D. Hunter and A.D. Watt. 2008. *Ecology of Insects: Concepts and Applications*. 2nd ed. Wiley-Blackwell. Available to all students as an e-book for checkout from UF libraries.

Attendance and Make-Up Work: Students are expected to attend all sessions either in person or via zoom. Asynchronous 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

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Structure of the Course

This course is designed to be very interactive so expect to be actively engaging with the material, either by asking questions, describing ecological processes, or discussing concepts with the instructor and peers. Mondays and Wednesdays will be spent presenting and discussing new content. Lectures will utilize PowerPoint presentations, the whiteboard, handouts, discussions, and group activities. Occasionally, there will be additional readings, short videos, or other instructional materials utilized during class. Once per week (Fridays) we will discuss a scientific paper.

Assessment & Evaluation

Discussion: Fridays will be spent discussing a paper from the scientific literature related to that week's topic. Discussion days may vary, for example if a holiday disrupts the schedule, so keep an eye on canvas for exact discussion dates. One or two students will be assigned to present a summary of the paper and lead the discussion (graduate students only). Students attending synchronously will present live (posted on zoom after class); asynchronous students will post a narrated PowerPoint to Canvas prior to lecture. All synchronous students are expected to participate in discussion, while asynchronous students should post comments on the canvas discussion forum. All graduate students will be expected to be actively participate in discussions when not presenting. Discussion points will be awarded for sharing answers to general discussion.

Insect Ecology in the News (blog posts and responses): Each week a student(s) will sign up to write a blog to post to canvas. Student will work independently to select a recent paper from the ecological literature related to the lecture topic for the week and write a press release of the article (700-800 words for graduate students). All other students will post replies on Canvas. Each student must reply to at least four blog posts.

Exams: Exams will be take-home open book exams. Questions will be a mix of short-answer, long-answer, and essay questions. All students will have at least 48 hours to complete the exams.

Category	Points	Due Date
Discussion participation	140	Semester long
Discussion presentation	100	Varies
Insect Ecology in the News (blog post)	100	Oct 20
Insect Ecology in the News (responses, 4 total)	40	Nov 12
Exam 1	100	Sept 22
Exam 2	100	Oct 27
Exam 3	100	Dec 11-17
Total	680	

Available Points and critical dates

Final Grade - Lecture

Scale: percentage	Letter grade	Minimum points required
90-100	А	612
88-89.9	B+	598

80-87.9	В	544
78-79.9	C+	530
70-79.9	С	476
68-69.9	D+	462
60-69.9	D	408
0-59.9	E	≤ 407

Weekly Course Schedule

Week	Date	Lecture module	Lecture Topic	Lecture Assessment
1	23-Aug	1	Overview of Insect Ecology	
2	30-Aug	2	Insects and climate	*Lead discussion
3	6-Sep	3	Life history strategies Monday holiday	
4	13-Sep	4	Resource niche and competition	
5	20-Sep	5	Plant-herbivore interactions I	EXAM 1
6	27-Sep	5	Plant-herbivore interactions II	
7	4-Oct	6	Mutualisms Friday Homecoming	
8	11-Oct	7	Predator-prey interactions I	
9	18-Oct	7	Predator-prey interactions II	News blog
10	25-Oct	8	Community ecology I	EXAM 2
11	1-Nov	8	Community ecology II	
12	8-Nov	8	Landscape ecology I	Blog responses
13	15-Nov	9	Landscape ecology II	
14	22-Nov	9	Ecosystem ecology I Wed & Fri holiday	No Discussion
15	29-Nov	10	Ecosystem ecology II	
16	6-Dec		Wrap-up and review	FINAL EXAM

* Leading discussion date will depend on your selected paper/topic **Schedule subject to change**

Reading List for Discussion (numbers correspond to week):

- 1. News article
- 2. Boggs, C.L. and D.W. Inouye. 2012. A single climate driver has direct and indirect effects on insect population dynamics. Ecology Letters 502-508.
- 3. Ragland et al. 2012. Environmental interactions during host race formation: host fruit environment moderates a seasonal shift in phenology in host races of *Rhagoletis pomonella*. Functional Ecology 26: 921-931.
- 4. Lenhart et al. 2015. Water stress in grasslands: dynamic responses of plants and insect herbivores. Oikos.
- Baer, K.C. and J.L. Maron. 2018. Pre-dispersal seed predation and pollen limitation constrain population growth across the geographic distribution of *Astragalus utahensis*. Journal of Ecology 106: 1646-1659.

https://jecologyblog.com/2020/06/24/harper-prize-shortlist-2019-katie-baer/

- 6. Hahn et al. 2019. Population variation, environmental gradients, and the evolutionary ecology of plant defense against herbivores. American Naturalist 193: 20-34. https://www.amnat.org/an/newpapers/JanHahn.html
- 7. Wagner et al. 2015. Facultative endosymbionts mediate dietary breadth in a polyphagous herbivore. Functional Ecology 29: 1402-1410.
- 8. Sanders et al. 2018. Low levels of artificial light at night strengthen top-down control in insect food web. Current Biology 28: 2474-2478.
- 9. Barton, B.T. 2011. Local adaptation to temperature conserves top-down control in a grassland food web. Proceedings of the Royal Society B.
- 10. Hein, A.M. and J.F. Gillooly. 2011. Predators, prey, and transient states in the assembly of spatially structured communities. Ecology 92: 549-555.
- 11. Grab et al. 2019. Agriculturally dominated landscapes reduce bee phylogenetic diversity and pollination services. Science 363:282-284.
- 12. Hawn et al. 2018. Connectivity increases trophic subsidies in fragmented landscapes. Ecology Letters 21: 1620-1628.
- 14. Metcalfe et al. 2014. Herbivory makes major contributions to ecosystem carbon and nutrient cycling in tropical forests. Ecology Letters 17: 324-332.

Grades and Grade Points: For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Course Evaluation Process: 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/.

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 (https://www.dso.ufl.edu/sccr/process/student-conducthonor-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.

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: The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, https://disability.ufl.edu/

Campus Helping Resources: Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently

enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- U Matter, We Care: If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, 352-392-1575, or visit <u>U Matter, We Care website</u> to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: <u>Visit the Counseling and Wellness Center</u> website or call 352-392-1575 for information on crisis services as well as noncrisis services.
- *Student Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or <u>visit the Student Health Care Center website</u>.
- University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,
- Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

Academic Resources:

- *E-learning technical support*: Contact the <u>UF Computing Help Desk</u> at 352-392-4357 or via e-mail at <u>helpdesk@ufl.edu</u>.
- <u>*Career Connections Center*</u>: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- <u>*Library Support*</u>: Various ways to receive assistance with respect to using the libraries or finding resources.
- <u>*Teaching Center*</u>: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.
- *Writing Studio*: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- On-Line Students Complaints: <u>View the Distance Learning Student</u> Complaint Process.

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> <u>Rights</u>.

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-studentconduct-code/
- Online Course: http://www.distance.ufl.edu/student-complaint-process

Insect Ecology Lecture FOR CURRICULUM REVIEW ENY 4xxx, Fall 2021, 3 credit

Delivery: face-to-face **Lecture time and location:** MWF, 9:35-10:25am, Steinmetz 1027

Instructor: Phil Hahn, office: Steinmetz 2109, phone: (352) 273-3960, email: <u>hahnp@ufl.edu</u>, zoom meeting room: <u>https://ufl.zoom.us/j/7044620919</u>

Office Hours: After lecture or email to arrange a time. All meetings will occur in my office or via Zoom (<u>https://ufl.zoom.us/j/7044620919</u>).

Lecture: All students are expected to attend in person.

Course Description: This course is an introduction to ecological concepts with emphasis on insects. The 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
- Describe the theoretical underpinning for understanding the causes and consequences of how insects interact with other species
- Translate ecological literature into lay public-accessible scientific news
- Apply fundamental ecological principles underlying the development and application of insect pest management and insect conservation
- Evaluate and critique primary ecological literature for content and scientific quality

Prerequisites:

BSC 2005(C) or BSC 2010(C)

Corequisite: ENY 4XXXL

Required Materials:

Lecture: Speight, M.R., M.D. Hunter and A.D. Watt. 2008. *Ecology of Insects: Concepts and Applications*. 2nd ed. Wiley-Blackwell. Available to all students as an e-book for checkout from UF libraries.

Attendance and Make-Up Work: Students are expected to attend all sessions in person. Please contact the instructor in advance if you plan to miss a class. Requirements for class attendance and make-up 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

This course is designed to be very interactive so expect to be actively engaging with the material, either by asking questions, describing ecological processes, or discussing concepts with the instructor and peers. Mondays and Wednesdays will be spent presenting and discussing new content. Lectures will utilize PowerPoint presentations, the whiteboard, handouts, discussions, and group activities. Occasionally, there will be additional readings, short videos, or other instructional materials utilized during class. Once per week (Fridays) we will discuss a scientific paper.

Assessment & Evaluation

Discussion: Fridays will be spent discussing an assigned paper from the scientific literature related to that week's topic. Discussion days may vary, for example if a holiday disrupts the schedule, so make a note of discussion dates in Canvas and the syllabus. There will be one presentation and discussion per week led by a group of graduate students. Undergraduate students are expected to participate in discussing the papers but will not be responsible for leading a presentation. For participation points, all students will be expected to answer general questions about the paper and be prepared to share their answers. Discussion points will be awarded for sharing an answer to one of these questions.

Insect Ecology in the News (blog posts and responses): Once during the semester, students will write a blog post based on a scientific paper. Students will work in consultation with the instructor to select a recent paper from the ecological literature related to a topic from lecture and write a press release of the article (400-500 words for undergraduate students). In the four weeks following the blog posts, students will be expected to read and respond to four blog posts.

Writing assessments: Writing assessments will be take-home open book assessments. Questions will be a mix of short-answer, long-answer, and essay questions. All students will have at least 48 hours to complete the assessments.

Category	Points	Percent of	Due Date
		grade	
Discussion participation (14 total, 10 points per	140	26%	Semester long
discussion)			
Insect Ecology in the News Blog Post	50	9%	Oct 18
Insect Ecology in the News (responses, 4 total)	40	8%	Nov 12
Writing assessment 1	100	19%	Sept 26
Writing assessment 2	100	19%	Oct 27
Writing assessment 3	100	19%	Dec 11-17
Total	530		

Available points and critical dates

Final Grade - Lecture

Scale: percentage	Letter grade	Minimum points required
90-100	А	477
88-89.9	B+	466

80-87.9	В	424
78-79.9	C+	413
70-77.9	С	371
68-69.9	D+	360
60-67.9	D	318
0-59.9	Е	≤ 317

Weekly Course Schedule

Week	Date	Lecture module	Lecture Topic	Lecture Assessment
1	23-Aug	1	Overview of Insect Ecology	
2	30-Aug	2	Insects and climate	
3	6-Sep	3	Life history strategies Monday holiday	
4	13-Sep	4	Resource niche and competition	
5	20-Sep	5	Plant-herbivore interactions I	Writing assessment 1
6	27-Sep	5	Plant-herbivore interactions II	
7	4-Oct	6	Mutualisms Friday Homecoming	
8	11-Oct	7	Predator-prey interactions I	
9	18-Oct	7	Predator-prey interactions II	News blog
10	25-Oct	8	Community ecology I	Writing assessment 2
11	1-Nov	8	Community ecology II	
12	8-Nov	8	Landscape ecology I	Blog responses
13	15-Nov	9	Landscape ecology II	
14	22-Nov	9	Ecosystem ecology I Wed & Fri holiday	No Discussion
15	29-Nov	10	Ecosystem ecology II	
16	6-Dec		Wrap-up and review	Writing assessment 3

Schedule subject to change

Reading List for Discussion (numbers correspond to week):

- 1. News article
- 2. Boggs, C.L. and D.W. Inouye. 2012. A single climate driver has direct and indirect effects on insect population dynamics. Ecology Letters 502-508.
- 3. Ragland et al. 2012. Environmental interactions during host race formation: host fruit environment moderates a seasonal shift in phenology in host races of *Rhagoletis pomonella*. Functional Ecology 26: 921-931.
- 4. Lenhart et al. 2015. Water stress in grasslands: dynamic responses of plants and insect herbivores. Oikos.
- 5. Baer, K.C. and J.L. Maron. 2018. Pre-dispersal seed predation and pollen limitation constrain population growth across the geographic distribution of *Astragalus utahensis*. Journal of

Ecology 106: 1646-1659.

https://jecologyblog.com/2020/06/24/harper-prize-shortlist-2019-katie-baer/

- 6. Hahn et al. 2019. Population variation, environmental gradients, and the evolutionary ecology of plant defense against herbivores. American Naturalist 193: 20-34. https://www.amnat.org/an/newpapers/JanHahn.html
- 7. Wagner et al. 2015. Facultative endosymbionts mediate dietary breadth in a polyphagous herbivore. Functional Ecology 29: 1402-1410.
- 8. Sanders et al. 2018. Low levels of artificial light at night strengthen top-down control in insect food web. Current Biology 28: 2474-2478.
- 9. Barton, B.T. 2011. Local adaptation to temperature conserves top-down control in a grassland food web. Proceedings of the Royal Society B.
- 10. Hein, A.M. and J.F. Gillooly. 2011. Predators, prey, and transient states in the assembly of spatially structured communities. Ecology 92: 549-555.
- 11. Grab et al. 2019. Agriculturally dominated landscapes reduce bee phylogenetic diversity and pollination services. Science 363:282-284.
- 12. Hawn et al. 2018. Connectivity increases trophic subsidies in fragmented landscapes. Ecology Letters 21: 1620-1628.
- 14. Metcalfe et al. 2014. Herbivory makes major contributions to ecosystem carbon and nutrient cycling in tropical forests. Ecology Letters 17: 324-332.

Grades and Grade Points: For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Course Evaluation Process: 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/.

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 (https://www.dso.ufl.edu/sccr/process/student-conducthonor-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.

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: The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, https://disability.ufl.edu/

Campus Helping Resources: Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *U Matter, We Care*: If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, 352-392-1575, or visit <u>U Matter, We Care website</u> to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: <u>Visit the Counseling and Wellness Center</u> website or call 352-392-1575 for information on crisis services as well as noncrisis services.
- *Student Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or <u>visit the Student Health Care Center website</u>.

- University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,
- Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

Academic Resources:

- *E-learning technical support*: Contact the <u>UF Computing Help Desk</u> at 352-392-4357 or via e-mail at <u>helpdesk@ufl.edu</u>.
- <u>*Career Connections Center*</u>: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- <u>*Library Support*</u>: Various ways to receive assistance with respect to using the libraries or finding resources.
- <u>*Teaching Center*</u>: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.
- <u>*Writing Studio*</u>: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- On-Line Students Complaints: <u>View the Distance Learning Student</u> Complaint Process.

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> <u>Rights</u>.

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-studentconduct-code/
- Online Course: http://www.distance.ufl.edu/student-complaint-process

APPENDIX A – Instructions for discussion

Prepare these questions for each discussion paper and be prepared to share your answers. You will get full credit for each discussion by sharing at least one answer, but you are encouraged to contribute more ideas.

- 1. What is the main research question or hypothesis?
- 2. How did the authors test their hypothesis?
- 3. What were the main conclusions? Did their results support their hypothesis?
- 4. What did you find most interesting about this paper?
- 5. What did you find confusing or challenging to understand?

APPENDIX B – Instructions and rubric for Insect Ecology in the News Blog Post Insect Ecology in the News - Blog post and responses Instructions:

Students will select a recent paper from the ecological literature related to the lecture topic for the week and write a blog post in the style of a press release. The blog post should be 500-800 words covering all aspects of the study and state why its interesting, how it will advance the field, or how it will improve conservation or pest management. The papers could be basic ecological research, although this is a chance to read and summarize applied ecological articles (ie. articles testing pest management strategies in agriculture or conservation approaches). Post your article as a new thread in the "Insect Ecology News" discussion forum on Canvas.

Points 50

Rubric

News blog rubric

	News blog rubric	
Criteria	Ratings	Pts

Blog post This rubric is a guide to how I will grade. It is meant to give you an idea of what components I am looking for, especially for Full Marks.	50 pts Full Marks Blog post accurately describes the main objectives, findings, and conclusions of the research. States why the research is interesting and how it will advance conceptual thinking in the field, conservation practices, or pest management strategies. Grammar is good and the flow is	45 pts High Marks Blog post accurately describes the main objectives, findings, and conclusions of the research. States why the research is interesting and how it will advance conceptual thinking in the field, conservation practices, or pest management strategies. Grammar is okay and/or the flow is	40 pts Good Marks Blog post accurately describes the main objectives, findings, and conclusions of the research. Some details are missing or confusing. States why the research is interesting and how it will advance conceptual thinking in the field, conservation practices, or pest management strategies.	30 pts Okay Marks Blog post accurately describes the main objectives, findings, and conclusions of the research. Some details are missing or confusing. Does not state why the research is interesting and how it will advance conceptual thinking in the field, conservation practices, or pest management strategies.	20 pts Poor Marks Blog post does not fully describe the main objectives, findings, or conclusions of the research. Some details are missing or confusing. Does not state why the research is interesting and how it will advance conceptual thinking in the field, conservation practices, or pest management strategies. Grammar is okay	0 pts No Marks	50 pts
	strategies. Grammar is good and the flow is logical.	strategies. Grammar is okay and/or the flow is slightly confusing.	practices, or pest management strategies. Grammar is okay and/or the flow is slightly confusing.	practices, or pest management strategies. Grammar is okay and/or the flow is slightly confusing.	management strategies. Grammar is okay and/or the flow is confusing.		
		1	1	1	1	1	

	News blog rubric	
Criteria	Ratings	Pts
Total Points: 10	0	

News blog responses: Every student is expected to provide at least one thoughtful comment as a response to four blog posts during the semester. Responses should be at least 50 words addressing at least one aspect of the blog related to the research topic, methods, conclusions, or interpretation. Comments should connect back to lecture material when possible. **Points:** 25 pts per post x 4 total = 100 pt

CALS Curriculum Committee Submission Checklist

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (<u>https://approval.ufl.edu/</u>). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as "Proposal of a new undergraduate course" is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

X It is required when making a submission that you consult your department's representative to the CALS CC. A list of current members can be found on the committee site located at: https://cals.ufl.edu/faculty-staff/committees/.

X You MUST comply with the CALS Syllabus Policy, including items 1 through 8 and all standard syllabus statements. This document can be viewed at the committee site(<u>https://cals.ufl.edu/faculty-staff/committees/</u>) by clicking on the Curriculum Committee – Information & Documents heading and scrolling down to Forms, Checklists, and Other documents. The other items included here are all very helpful when making a curriculum submission. Some will be mentioned in other checklist items below.

<u>NA</u> Submission of a course modification requires both the current version of the course syllabus and the proposed version.

 \underline{X} Joint course submissions must include 1.) both graduate and undergraduate syllabuses and 2.) a separate document outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

 \underline{X} The course description on the UCC form and in the syllabus must match. Any other information you wish to include needs to be under a different heading such as background or additional information.

X The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (<u>https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-course-objectives.pdf</u>). Do not use the words demonstrate or understand when listing learning objectives.

<u>X</u> The course schedule should be concise and include the appropriate number of weeks in the semester.

<u>NA</u> All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

<u>NA</u>Outside consultations are required if there is a possibility of the proposed course covering material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: <u>https://registrar.ufl.edu/pdf/uccconsult.pdf</u>. Graduate version currently taught.

<u>X</u> Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable.

 \underline{X} Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

 \underline{X} The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this is included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

<u>X</u> The most recent version of the CALS Syllabus Statements boiler plate must be included in all syllabuses. This document is included in the CALS Syllabus Policy and can be copied and pasted to the syllabus. Do not use the boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Joel Brendemuhl (brendj@ufl.edu) for further instruction)

Difference in learning objectives and assessments between ENY4xxx and the current graduatelevel offering ENY6203

- Graduate students have one additional learning objective: Synthesize and communicate scientific results to an audience
- Graduate students will deliver a 15 minute presentation and lead discussion for one of the weekly discussion readings. There is one presentation/discussion per week for the entire 50 minute class section. 100 points.
- All students will write a blog post summarizing a paper of their choosing. Undergraduate posts will be shorter (400-600 words, 50 points) than graduate students (700-800 words, 100 points).
- Total points for undergraduates = 530 and graduate students = 680. Points for graduate students is 28% greater than for undergraduates.