

COURSE SYLLABUS FOR INSECT ECOLOGY—Section 700—Fall 2021

ENTO/BIOS 406---Department of Entomology
College of Agricultural Sciences and Natural Resources/IANR
University of Nebraska-Lincoln

Prerequisites for this course include ENTO 115 (Insect Biology) and at least one other course in entomology.

I. Course Objective

The overall course objective is to examine the role that insects play in the ecosystems they inhabit and to study how the ecosystems influence the insects that live in them.

II. Instructor

Erin Bauer, Entomology Graduate Lecturer, 305C Entomology Hall, UNL, Lincoln, NE 68583-0816 Telephone: (402)-786-8180
Email: ebauer2@unl.edu

TA: Jeff Simpson: jsimpson30@huskers.unl.edu

II. Learning Objectives:

1. Identify and analyze key concepts in insect ecology.
2. Identify biotic and abiotic ecological forces that drive insect behavior.
3. Discuss responses of insects to ecological stimuli.
4. Describe how insects acquire and allocate resources.
5. Identify principles of insect population and community structure and function, systems, and dynamics.
6. Describe the role of insects in populations, communities, and ecosystems, including intra- and interspecific interactions and trophic dynamics.
7. Explain how insects are associated with herbivory, seed predation and dispersal, pollination, and decomposition.
8. Discuss how insect populations can be managed.

IV. Textbooks (available on Amazon.com and other online retailers):

Required:

Schowalter, T.D. (2016). *Insect Ecology: An Ecosystem Approach*. Academic Press.

Recommended:

Price, P.W., Denno, R.F., Eubanks, M.D., Finke, D.L., and Kaplan, I. (2012). *Insect Ecology: Behavior, Populations, and Communities*. Cambridge University Press.

Speight, M.R., Hunter, M.D., & Watt, A.D. (2008). *Ecology of Insects: Concepts and Applications*. Wiley-Blackwell.

V. Instructional Method

The course is designed with a variety of print and electronic resources to aid in your learning of the material. Students will be required to read each chapter and then watch/read supplemental materials provided on Canvas. These might include narrated Powerpoint lectures, YouTube videos, presentations, or other resources. Detailed PDF notes will also be provided to help outline each chapter.

VI. Class Schedule

Please note that the number in parentheses in the table below is the chapter in the textbook that is the assigned reading for the indicated week of lectures.

Week	Topic	Assignments Due
1 (Aug 23-27)	Overview (1)	
2 (Aug 30-Sept 3)	Responses to Abiotic Conditions (2)	
3 (Sept 6-10)	Resource Acquisition (3)	
4 (Sept 13-17)	Resource Allocation (4)	
5 (Sept 20-24)	Population Systems (5) Exam 1 (opens Sept 20)	
6 (Sept 27-Oct 1)	Population Dynamics (6) Exam 1 (closes Sept 27)	1st film essay due Oct 1
7 (Oct 4-8)	Biogeography (7)	
8 (Oct 11-15)	Species Interactions (8)	
9 (Oct 18-22)	Fall break Community Structure (9)	
10 (Oct 25-29)	Community Dynamics (10) Exam 2 (opens Oct 25)	
11 (Nov 1-5)	Ecosystem Structure and Function (11) Exam 2 (closes Nov 1)	2nd film essay due Nov 5
12 (Nov 8-12)	Herbivory (12)	
13 (Nov 15-19)	Pollination, Seed Predation, and Seed Dispersal (13)	
14 (Nov 22-26)	Decomposition and Pedogenesis (14) Thanksgiving	
15 (Nov 29-Dec 3)	Insects as Regulators of Ecosystem Processes (15)	Insect Real Estate assignment Dec 3
16 (Dec 6-10)	Management of Insect Populations (17) Final exam (opens Dec 6)	
17 (Dec 13-17)	Final exam (closes Dec 13)	

VII. Student Assignments

Exams: There will be two timed, closed-book online exams and a take home final in this course. Two 50 point exams will be given on Canvas during the course of the semester and will consist of true/false, multiple choice, and short answer questions. The 100 point final exam will be open book, take home, and short answer/essay. Exam 1 will cover chapters 1-5, Exam 2 will cover Chapters 6-10, and the final will be comprehensive, with a focus on Chapter 11-17. Note that Chapter 16 is not covered in this course.

Insect Real Estate Assignment: Students will create a “real estate ad” that promotes an ecosystem and the “amenities” it offers that will attract a target insect audience to that ecological area. See more detailed instructions on Canvas.

Film Essays: Students will complete two class essay topics (see separate handout for details including how to submit and due dates), which will each focus on a short film about specific insects and their environment. Additional references and thought are necessary to be successful on these assignments.

For assistance in obtaining reference materials from the library here at the University of Nebraska, contact the Entomology Librarian, who is Leslie Delserson, C.Y. Thompson Library,

East Campus, UNL, Lincoln, NE 68583- 0717 (402) 472-6297 Email: ldelserone2@unl.edu A library online entomology guide can be found at: <https://unl.libguides.com/entomology>

VIII. Discussion Board on Canvas: A discussion board will be available for students' use. There are no official assignments; however, you may wish to use it to share with your classmates interesting insect ecology topics you've found or to pose questions.

Discussion Etiquette:

- Please participate in online discussions as you would in constructive face-to-face discussions.
- Please be professional and courteous.
- Online communication lacks the non-verbal cues that provide much of the meaning in face-to-face conversations. Choose your words carefully, phrase your sentences clearly, and keep your sentences and paragraphs brief.
- State your purpose for writing at or near the beginning of your message whenever possible.

Please proofread what you post!!

IX. Grading

Exam 1	50
Exam 2	50
Final exam	100
Insect Real Estate Assignment	25
<u>Film Essays (50 X 2)</u>	100
Total	325 points

Percent of Total Points Earned

Grading Scale

97%	A+
93%	A
90%	A-
87%	B+
83%	B
80%	B-
77%	C+
73%	C
70%	C-
67%	D+
63%	D
60%	D-
below 60%	F

Academic Dishonesty:

All students and faculty should be familiar with the UNL Policy regarding Academic Dishonesty that may be found in the Student Code of Conduct (<http://stuafs.unl.edu/dos/code>).

When a student is notified by an instructor of an alleged act of Academic Dishonesty, they should discuss the matter with the instructor to determine if redress is possible. If the instructor decides

to move forward with the allegation of Academic Dishonesty and the result is a lower grade, the instructor shall make a report in writing of the facts of the case and the academic sanction imposed against the student to the instructor's Academic Unit Chair, Head or Director and to the UNL Judicial Officer. Both the instructor and academic unit should maintain copies of the relevant documents on file for at least two years.

If the student feels that the allegations of the instructor regarding Academic Dishonesty, or the proposed penalty to be imposed, are unjust or not warranted, the student should contact their academic advisor and the Unit/Program Chair/Head/Director to discuss the matter. This process must be initiated within one month of the class grade assignment. The Unit/Program should then initiate a review of the matter consistent with its written policy. If the Unit/Program agrees with the Instructor that the evidence indicates that the student has violated the Academic Dishonesty policy, they should forward the documentation and paperwork to the CASNR Associate Dean for Student Affairs for review by the College. If the Unit/Program determines that there is not sufficient evidence of Academic Dishonesty to warrant action against the student, the paperwork should be forwarded to the CASNR Dean with the student's name deleted so that there is a record of the incident, but no potential future bias toward the student.

Once received by the CASNR Associate Dean for Student Affairs, the file alleging student Academic Dishonesty should be considered by a Panel consisting of the CASNR Associate Deans. If the Panel decides that there is sufficient evidence to support the allegation of Academic Dishonesty made by the instructor, the student will be notified. If the student desires to appeal this decision, the file will be forwarded to the CASNR Dean for transfer to the UNL Judicial Officer.

Additional Information:

PLEDGE OF INSTRUCTIONAL STANDARDS

Entomology instructors will provide our students a complete syllabus meeting all UNL standards, our classes will be based on current science and will follow published schedules and descriptions, and our instructors will be timely in returning grades and in responding to our students.

ADA STATEMENT

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can discuss options privately. To establish reasonable accommodations, I may request that you register with Services for Students with Disabilities (SSD). If you are eligible for services and register with their office, make arrangements with me as soon as possible to discuss your accommodations so they can be implemented in a timely manner. SSD contact information: 117 Louise Pound Hall.; 402-472-3787

CHEATING

The University of Nebraska-Lincoln has a policy about academic dishonesty, as indicated in the Student Code of Conduct (see Undergraduate Bulletin). As a student at UNL, you enjoy rights and protections under the code and are obligated to conduct yourself in compliance with the code.

As the Student Code of Conduct indicates, academic sanctions for misconduct subject to appeal are at the discretion of the instructor and may include giving the student a failing grade for the course. In this course, the least penalty that will be imposed for misconduct is a one letter grade reduction in the course grade, but in most instances the penalty for cheating will be a failing grade in the course.

“Students are expected to adhere to guidelines concerning academic dishonesty as specified in Entomology policy (insert web link) in accordance with Section 4.2 of the University Student Code of Conduct (<http://stuafs.unl.edu/ja/code/>).”

MENTAL AND WELL-BEING RESOURCES

UNL offers a variety of options to students to aid them in dealing with stress and adversity. Counseling and Psychological & Services (CAPS) is a multidisciplinary team of psychologists and counselors that works collaboratively with Nebraska students to help them explore their feelings and thoughts and learn helpful ways to improve their mental, psychological and emotional well-being when issues arise. CAPS can be reached by calling 402-472-7450. Big Red Resilience & Well-Being provides one-on-one well-being coaching to any student who wants to enhance their well-being. Trained well-being coaches help students create and be grateful for positive experiences, practice resilience and self-compassion, and find support as they need it. BRRWB can be reached by calling 402-472-8770.