

Entomology 416/816 (1 credit)
Forensic Insect Succession Syllabus
Spring 2023

INSTRUCTOR

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Office Hours: The best way to reach me is by email. Expect a response within 24 hours on weekdays or 48 hours on weekends (but often much sooner). If you call, leave a message and I will get back with you as soon as possible.

ABOUT THE COURSE

This course will introduce students to forensic insect succession and specific forensically important insects including their life cycle, biology, and association with decomposition. Case studies about how forensic entomology has been used in solving crimes will also be covered.

COURSE OBJECTIVES

1. Understand forensic insect succession and its relationship to decomposition stages.
2. Identify and describe common insects of forensic importance.
3. Critique scholarly research about forensically important insects.
4. Examine case studies in forensic entomology.

INSTRUCTIONAL METHOD

Canvas will be used for delivery of all materials pertinent to this course (lectures, asynchronous discussions, videos, readings, and assignments). Power Point presentations will be used to deliver lectures, which will include text and images and will be strengthened by narration to emphasize key points. In addition, readings and videos will be assigned. Each student is expected to complete all reading assignments and view all supplementary videos for each module.

Because this is an asynchronous class, my role as instructor will be to answer any questions you have about the course or the assignments and begin discussions. Within the discussion board, I may add comments, but primarily would like you and your classmates to guide the discussion with your own thoughts and ideas. I check email frequently and usually get back to students within 24 hours on weekdays or 48 hours if over a weekend.

TEXTBOOKS AND RESOURCES (available on Amazon.com and other online retailers):

Required:

Castner, J.L. & Byrd, J.H. (2000). *Forensic Insect Identification Cards*. Feline Press, Gainesville, FL.

Also, please watch the *Catching Killers: Insect Evidence* TV episode. You can watch it in one of several ways:

1. It is available online from the *Smithsonian channel* (login with TV provider or you can do a 24 hour free pass) at <https://www.smithsonianchannel.com/episodes/yayiw1/catching-killers-insect-evidence-season-1-ep-4>

2. It is available on **Paramount Plus** if you have this service.
3. It is also available for purchase for \$2 from [Amazon](#), [Vudu](#), or [Google Play](#).

Recommended:

Byrd, J.H. & Castner, J.L. (2009). *Forensic Entomology: The Utility of Arthropods in Legal Investigations*. 2nd ed. CRC Press.

STUDENT ASSIGNMENTS

Introductory Discussion: Students will briefly introduce themselves on the discussion board and then respond to at least one of their classmates.

Forensic Insect Dating Assignment: Students will choose a forensically important insect and write a “dating profile” about that insect (one for undergrads, two for grads).

Journal Article Critiques: Students will choose topically related scholarly research paper/articles and write a 3–4-page summary and critique for that article. Please see separate handout for more details about this assignment.

Case Study Assignments: Students will watch a video and complete a class assignment (one for undergrads, two for grads; see separate handout for details) about specific cases where insects were used to help solve a crime. Additional references and thought are necessary to be successful on these assignments.

Exams: There will be two exams in this course, a midterm and a final. Both will be open book and untimed, with questions being multiple choice, matching, true/false, or fill in the blank. The midterm will cover the first half of the course, and the final will be comprehensive.

For assistance in obtaining reference materials from the library here at the University of Nebraska, contact the Entomology Librarian, who is Leslie Delserone, C.Y. Thompson Library, East Campus, UNL, Lincoln, NE 68583- 0717 (402) 472-6297 Email: ldelserone2@unl.edu

POINT BREAKDOWN

Undergraduates

Assessment	Quantity	Points Per	Total Points
Intro Discussion	1	10	10
Forensic Insect Dating	1	25	25
Journal Article Critique	1	30	30
Case study assignment	1	50	50
Midterm exam	1	65	65
Final exam	1	75	75
Total			255 points

Graduates

Assessment	Quantity	Points Per	Total Points
Intro Discussion	1	10	10
Forensic Insect Dating	2	25	50
Journal Article Critique	1	30	30
Case study assignment	2	50	100
Midterm exam	1	65	65
Final exam	1	75	75
Total			330 points

Letter grades will be assigned based on straight percentages of 100 - 90% A range, 89 - 80% B range, etc. Grades will be rounded up if .5 or above. (i.e., 89.5 will be rounded up to 90; 89.4 will remain 89)

SCALE

100 – 98 A+	89 - 87 B+	79 - 77 C+	69 – 67 D+	59 – 0 F
97 – 94 A	86 - 83 B	76 – 73 C	66 – 63 D	
93 – 90 A-	82 - 80 B-	72 – 70 C-	62 – 60 D-	

CLASS SCHEDULE

Week	Topic	Assignments due
1 (Jan 23-27)	Introduction to Insect Succession	
2 (Jan 30-Feb 3)	Diptera: Blow Flies Part 1	Intro Discussion (Feb 3)
3 (Feb 6-10)	Diptera: Blow Flies Part 2	
4 (Feb 13-17)	Diptera: Flesh Flies	
5 (Feb 20-24)	Diptera: House & other misc. flies	Journal critique (Feb 24)
6 (Feb 27-Mar 3)	Special Topic: Forensic Ento Ecology Special Topic: Forensic Ento in Latin America Midterm exam opens Mar 3	
7 (Mar 6-10)	Midterm exam closes Mar 10 Case Studies	
8 (Mar 13-17)	Spring Break, no lecture	
9 (Mar 20-24)	Coleoptera: Predatory beetles	Insect Dating 1 (Mar 24)
10 (Mar 27-31)	Coleoptera: Carrion beetles	
11 (Apr 3-7)	Coleoptera: Dermestid beetles	Case Study Assn 1 (Apr 7)
12 (Apr 10-14)	Hymenoptera: Predatory insects	
13 (Apr 17-21)	Other predatory arthropods	
14 (Apr 24-28)	Blattodea/Lepidoptera/Orthoptera: Opportunistic insects	Insect Dating 2 (Apr 28) (grad students only)
15 (May 1-5)	Other Opportunistic arthropods	
16 (May 8-12)	Final exam opens May 8	Case study Assn 2 (May 12) (grad students only)
17 (May 15-19)	Final exam closes May 15	

COURSE POLICIES AND RESOURCES

Visit the link below for UNL policies on Attendance, Academic Honesty, Students with Disabilities, Mental Health and Well Being, Emergency Procedures, Diversity and Inclusion, Title IX, and Final Exam Schedules.

<https://executivevc.unl.edu/academic-excellence/teaching-resources/course-policies>