



SYLLABUS

ENTMLGY 2102

Insects and Human Affairs: Virtual Laboratory
Autumn 2022

Course Information

- **Course times and location:** Asynchronous and online
- **Credit hours:** 1
- **Mode of delivery:** Distance Learning

Instructor

- **Name:** Dr. Ellen Klinger
- **Email:** klinger.80@osu.edu
- **Phone Number:** 614-247-4763 (office)
- **Office location:** 255 Kottman Hall
- **Office hours:** TBA; email instructor to set up Zoom meeting
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages. For announcements that are time sensitive or critical, I may also use e-mail as an additional notification route.

Course Prerequisites

ENTMLGY 2101 or concurrent enrollment



Course Description

Insects are a daily fact of life, exerting major influence on human affairs over the course of history. The course gives students experience in observing, recording and analyzing data associated with insect-human interactions.

General Education Goals and Expected Learning Outcomes (ELO)

This course, in combination with ENTMLGY 2101 is a General Education (GE) Foundations: Natural Sciences course. ENTMLGY 2102 fulfills Goal 1 in the GE Foundations: Natural Sciences and Expected Learning Outcome 1.3.

When this 1-credit ENTMLGY 2102 laboratory is taken in combination with the 3-credit ENTMLGY 2101 lecture, these 4-credits (i.e., 1-credit laboratory + 3-credit lecture) fulfill ALL Goals (i.e., Goals 1 and 2) and ALL Expected Learning Outcomes (i.e., ELOs 1.1, 1.2, 1.3, 2.1, 2.2, 2.3) for the GE Foundations: Natural Sciences category.

GE Goal 1: Successful students will engage in theoretical and empirical study within the natural sciences, gaining an appreciation of the modern principles, theories, methods, and modes of inquiry used generally across the natural sciences.

Expected Learning Outcome 1.1: Successful students are able to explain basic facts, principles, theories and methods of modern natural sciences; describe and analyze the process of scientific inquiry.

Expected Learning Outcome 1.2: Successful students are able to identify how key events in the development of science contribute to the ongoing and changing nature of scientific knowledge and methods.

Expected Learning Outcome 1.3: Successful students are able to employ the processes of science through exploration, discovery, and collaboration to interact directly with the natural world when feasible, using appropriate tools, models, and analysis of data.

GE Goal 2: Successful students will discern the relationship between the theoretical and applied sciences, while appreciating the implications of scientific discoveries and the potential impacts of science and technology.

Expected Learning Outcome 2.1: Successful students are able to analyze the interdependence and potential impacts of scientific and technological developments

Expected Learning Outcome 2.2: Successful students are able to evaluate social and ethical implications of natural scientific discoveries

Expected Learning Outcome 2.3: Successful students are able to critically evaluate and responsibly use information from the natural sciences



This course fulfills goal 1 and learning outcome 1.3 of the foundations of the Natural Science GE through a variety of activities such as: Designing experiments involving fly trap design and insect behavior, carrying out those experiments and reflecting on the process. Collecting and analyzing data in these experiments as well as through other data collection sources, manipulating and analyzing the data responsibly and creating appropriate results and data summaries. Experiencing and investigating the insect world around you with light trapping, pollinator observations and diapausing insect searching. Creating links between society and insects through investigation into insect uses in the media. All goals will be assessed through weekly lab assignments as well as through questions on the lab final exam.

Course Specific Learning Outcomes

By the end of this course, students should successfully be able to (with reference to the related general education learning objectives above):

- Identify the scientific process and synthesize insect related experimental designs (ELO1.3)
- Observe insects and identify evidence of their impact to the world (ELO 1.3)
- Analyze insect related data with appropriate tool and summarize results for a lay audience (ELO 1.3).

How this course works

Mode of delivery: This course is 100% online. There are no required sessions when you must be logged in to Carmen at a scheduled time, however there will be at home activities to complete during the week. There may be some optional in-person or online synchronous activities offered during the semester to facilitate completion of the labs (group insect trapping, access to live insects for experiments) but these activities are 100% optional and not required to get a good grade or complete this course.

Pace of online activities: This course is divided into **weekly labs** that are released one week ahead of their due date, via Carmen module. Laboratory modules will include a laboratory overview outlining expectations, video explanations by the instructor as well as relevant links and materials. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame. Keep in mind that some assignments cannot be completed at the last minute and students should review their expected workload at the beginning of the week. In some labs requiring data collection, students may need to distribute their effort over several days. While I encourage direct student interaction with insects, anytime a lab requires use of or observation of a live insect, recorded material will also be available for those students who do not wish to / have difficulty interacting with live insects.

Credit hours and work expectations: This is a [1] credit-hour course. According to [Ohio State bylaws on instruction](#) (go.osu.edu/credithours), students should expect around 2 hours



per week of time spent on direct lab work and instruction and an additional 1 hour per week studying and completing assignments to receive a grade of C average.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

Participating in online activities for attendance: at least once per week

You are expected to log in to the course in Carmen every week. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.

Zoom meetings and office hours: optional

All live, scheduled events for the course, including my office hours, are optional.

Participating in lab group forums: one to two times per week

Each week you will interact with your lab group online. This discussion may take place via Carmen discussion or an alternate collaborative way as indicated by your instructor.

If you have an absence due to medical conditions, school activities or other documentable issues, please contact the instructor to alert them to this excused absence. Due dates will be adjusted accordingly.

Course Materials, Fees and Technologies

Required Materials and/or Technologies

There is no required text for this class.

As part of the animal behavior lab, students may opt to purchase a feeder cricket or mealworm beetle larvae from a pet store. The instructor will provide you information regarding sources for this purchase in Carmen- total student cost should be less than \$0.25.

Students may need to locate common household products to complete the light trap and fly trap labs; in certain circumstances students may need to purchase an inexpensive component of the lab setup. The instructor will provide you with a full list of equipment needed via Carmen in week one of the course.

Required Equipment

Computer: current Mac (MacOS) or PC (Windows 10) with high-speed internet connection.

Webcam: built-in or external webcam, fully installed and tested.

Microphone: built-in laptop or tablet mic or external microphone.

Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication.

If you do not have access to the technology you need to succeed in this class, review options for [technology and internet access](https://go.osu.edu/student-tech-access) (go.osu.edu/student-tech-access).

Required Software



Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

Students will access several additional internet-based systems. There will be no need to download these programs. They include

NetLogo:(<https://ccl.northwestern.edu/netlogo/index.shtml>)

CovidSim:(<https://askabiologist.asu.edu/covid-sim/index.html>)

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device (go.osu.edu/add-device) help article for step-by- step instructions
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes, good for 365 days, that can each be used once.
- [Install the Duo Mobile application](https://go.osu.edu/install-duo) (go.osu.edu/install-duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)
- [CarmenZoom virtual meetings](https://go.osu.edu/zoom-meetings) (go.osu.edu/zoom-meetings)
- [Recording a slide presentation with audio narration and recording, editing and uploading video](https://go.osu.edu/video-assignment-guide) (go.osu.edu/video-assignment-guide)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it

- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu

Grading and Faculty Response

How Your Grade is Calculated

Assignment Category	Points
Class Intro Materials (Syllabus Quiz)	10
Weekly Lab Reports (30 points each)	390
Laboratory Final	30
Total points	430

See Carmen and course schedule for specific due dates, however **all lab reports will be due on Tuesdays at 11:59PM**

Descriptions of Major Course Assignments

Class Intro Materials

Description: Each student will be required to take a short quiz on the syllabus material for this lab. This quiz ensures students will understand the lab format and serves as a measure for initial engagement in his online course

Academic integrity and collaboration: These quizzes are open-book and untimed. Students must complete the syllabus quiz on their own, but they will have multiple untimed opportunities to take the quiz.

Weekly Lab Reports:

Description: Students will submit a lab report via a Carmen assignment after completing each week's activity. This lab report will include any data and observations as well as answers to questions posed by the instructor via the assignment. The lab reports will also include student reflections with classmate interaction in discussion and other online forums regarding the previous week's lab. Each Carmen lab report assignment will include details about the required information for that week's assignment.

Academic integrity and collaboration: Each student must turn in a lab report that is their own work. While in some laboratory cases we will use shared data, all student question answers and reflections will be their own. Students may work with other students on specific areas that will be clearly designated by the instructor within the Carmen assignment.



Laboratory Final

Description: The laboratory final will be administered using the Carmen quiz function during the last week of class. This laboratory final will be composed of multiple choice and short answer questions and will evaluate student understanding of the concepts learned during the semester.

Academic integrity and collaboration: Students may not work with others on the laboratory final, but students may use any notes and books during the online final. The laboratory final will not be timed and will be available for completion in lieu of a weekly lab assignment in Week 14.

Late Assignments

Please refer to Carmen for specific due dates for each assignment. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments. Late assignments may be subject to a 10% reduction of points per 24-hour period. If you are unable to turn in an assignment due to an excused absence, alert the instructor via e-mail as soon as possible and the instructor will discuss a modified due date with you when you submit your excused absence reason.

Instructor Feedback and Response Time

I am providing the following list to give you an idea of my intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **24 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages. I may also send important announcements directly to your email if needed.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **ten days**. Assignments submitted after the due date may have reduced feedback and grades may take longer to be posted.

Grading Scale

93–100%: A
 90–92.9%: A-
 87–89.9%: B+
 83–86.9%: B
 80–82.9%: B-
 77–79.9%: C+
 73–76.9%: C
 70–72.9%: C-



67–69.9%: D+
 60–66.9%: D
 Below 60%: E

Insect safety

This class will have assignments that may ask you to observe live insects and arthropods. If an assignment asks you to observe insects, please understand that handling the insects may result in bites or stings. In cases in which you may be asked to handle insects (insect behavior lab) the instructor will provide clear guidelines for safe insect handling if needed. All activities that involve direct insect interaction will have recorded material available to use in lieu of the insect activities. At any time, if you have a question regarding safety with insects, or are uncomfortable handling insects, please contact your instructor via e-mail. Note: If you live in university sponsored housing, you are not permitted to house or attract insects within these facilities. Your instructor will clearly indicate those lab activities that will need to be completed through asynchronous recordings at the time of assignment.

Other Course Policies

Discussion and Communication Guidelines

Students will be placed into small lab groups. There may be need to communicate between members of this group. These are my general expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Excessive spelling and grammar errors may result in a reduction in your discussion grades. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics. Abide by your agreed upon group discussion rules.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic integrity policy

See descriptions of course assignments for integrity expectations for specific assignments. Consult your instructor if you have a question about expectations.

Ohio State's academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's *Code of Student Conduct* (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- Committee on Academic Misconduct web page (go.osu.edu/coam)
- *Ten Suggestions for Preserving Academic Integrity* (go.osu.edu/ten-suggestions)
- *Eight Cardinal Rules of Academic Integrity* (go.osu.edu/cardinal-rules)

Safe and Healthy Buckeyes

Health and safety requirements: All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>). Non-compliance will result in a warning first, and disciplinary actions will be taken for repeated offenses.

Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Commitment to a diverse and inclusive learning environment and creating an environment free from harassment, discrimination, and sexual misconduct.

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Diversity Statement

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

To learn more about diversity, equity, and inclusion and for opportunities to get involved, please visit:

- <https://odi.osu.edu/>
- <https://odi.osu.edu/racial-justice-resources>
- <https://odi.osu.edu/focus-on-racial-justice>
- <http://mcc.osu.edu/>

In addition, this course adheres to The Principles of Community adopted by the College of Food, Agricultural, and Environmental Sciences. These principles are located on the Carmen site for this course; and can also be found at <https://go.osu.edu/principlesofcommunity>. For additional information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (<https://equityandinclusion.cfaes.ohio-state.edu/>). If you have been a victim of or a witness to a bias incident, you can report it online and anonymously (if you choose) at <https://studentlife.osu.edu/bias/report-a-bias-incident.aspx>.

Your mental health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling (614) 292- 5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24-hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-(800)-273-TALK or at suicidepreventionlifeline.org

For students in CFAES, David Wirt, wirt.9@osu.edu, is the CFAES embedded mental health counselor. He is available for new consultations and to establish routine care. To schedule with David, please call 614-292-5766. Students should mention their affiliation with CFAES when setting up a phone screening.

Accessibility accommodations for students with disabilities

Requesting accommodations

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions),



please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- Canvas accessibility (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)
- Collaborative course tools

Course schedule

Schedules of activities will be coordinated between student and instructor and will be based upon expected workloads.

Week	Lab Activity (each weekly activity assessed via digital lab report)	Due date for lab report/exam
1	Virtual insect morphology identification; Digital insect measurements; t-test analysis	Aug 30
2	Light Traps* (AU); Forensic Entomology Lab (SP)	Sep 6
3	Pollinator observation* (AU)/diapause observation* (SP)	Sep 13
4	Media project: Collect data	Sep 20
5	Media project: Select hypothesis; parse dataset	Sep 27
6	Media project: Analyze data and make conclusions	Oct 4
7	Media project: Poster design and presenting; virtual presentations and reflection on networking	Oct 11
8	Pepper moth evolution project	Oct 25
9	Plague Project/SIR model	Nov 1
10	Building the Best Fly Trap*	Nov 8
11	Insect behavior experiment*; chi square analysis.	Nov 15
12	Light Traps* (SP); Forensic Entomology Lab (AU)	Nov 22
13	Pollinator observation* (SP)/diapause observation* (AU)	Dec 6
14	Lab final exam online.	Dec 13

AU – students taking this course in Autumn semesters should expect the activities designated as AU

SP- students taking this course in Spring semesters should expect the activities designated as SP

**These activities involve live insects, the instructor will give you the option to perform on your own, or use recorded material to complete these activities.*