



ENTMLGY 3300: Insects of Ohio AUTUMN 2022; 2 credit hours

Course Information

- **Course times and location:** Wednesdays, 9:35 a.m.-10:30 a.m. and Fridays, 9:35 a.m.-12:15 p.m., Location: Kottman Hall 116
- **Credit hours:** 2
- **Mode of delivery:** In-Person

Instructor

- **Name:** Benjamin Philip, Ph.D.
- **Email:** philip.12@osu.edu
- **Office location:** 257A Howlett Hall
- **Office hours:** by appointment
- **Office phone:** (614) 688-4973
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will occur in class, be sent through email or added to the Announcements in CarmenCanvas. Please check your [notification preferences](#) (go.osu.edu/canvas-notifications) to be sure you receive these announcements.

Course Prerequisites

N/A

Course Description

This lecture and field course focuses on the basic biology and diversity of insects and related arthropods of Ohio. We will study anatomy, physiology, behavior, and evolutionary processes associated with insects, and learn how these principles contribute to the diversity of insects in



Ohio. Students will also learn how to identify insects during field based collection and ID sessions.

Learning Outcomes

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

- Distinguish different insect orders based on common characteristics.
- Identify select insects and arthropods in different ecosystems in Ohio by sight.
- Understand the basic principles of insect biology, including anatomy, physiology, behavior and their contribution to ecosystems services.
- Use basic dichotomous keys and similar tools to aid in insect identification.
- Communicate information about insects to the non-scientific public.

How This Course Works

Mode of delivery: This course is held in person at the assigned time. There is a lecture (Wednesday) and a field laboratory component (Friday) to the course and students are expected to participate in both. Our laboratories will occur in almost any weather, therefore students must be prepared for a variety of weather conditions. Students should wear appropriate field laboratory clothing, including closed-toe shoes, and long-sleeved shirts and pants are recommended because they provide the most protection from the elements. Field sites will be accessible by walking or CABS/CABS On-Demand (<https://ttm.osu.edu/on-demand>).

Credit hours and work expectations: This is a 2 credit-hour course. According to Ohio State bylaws on instruction (go.osu.edu/credithours), students should expect around 4 hours per week of time spent on direct instruction in lecture and in the field, in addition to 2 hours of homework (reading and assignment preparation, for example) to earn the average grade of "C" in this course.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. Part of your grade in this class is based on your engagement and professionalism. This is more than simple attendance— I expect you to arrive to class on time and prepared to actively participate in the daily activities. With that in mind, I have the following expectations for everyone's participation:

- **Participating in lectures/laboratory: TWICE PER WEEK**

Additionally, you are expected to log in to the course in Carmen at least once per week. If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.

Course Materials, Fees and Technologies

Required Materials and/or Technologies

- Evans, Arthur. National Wildlife Federation Field Guide to Insects and Spiders of North America. Sterling Publishing. 2007. ISBN: 9781402741531

Recommended/Optional Materials and/or Technologies

- Seek (by iNaturalist). App available on iOS and Android.
https://www.inaturalist.org/pages/seek_app

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 at 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](http://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](http://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](http://go.osu.edu/add-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 (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 (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)
- Recording a slide presentation with audio narration and recording, editing and uploading video (go.osu.edu/video-assignment-guide)
- Recording, editing, and uploading video (go.osu.edu/video-assignment-guide)
- Using standard office suite for PC (Word, Excel, PowerPoint, etc.) or Mac (Pages, Numbers, Keynote, etc.).
- Attaching images to documents and emails.

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
Midterm Exam	150
Final Exam	150
Lecture and field identification quizzes (10-15 points each)	100
Physical/ Digital Insect collection	200
Insect Outreach Project- BYGL or Recorded Presentation	100
Engagement and Professionalism (Attendance & Contributions)	50
TOTAL	750

See Course Schedule for due dates.

Descriptions of Major Course Assignments

Exams (Midterm and Final)

Description: Students will be evaluated on their learning at both the midway and final periods of the class. These exams will include portions of multiple choice and short answer questions, as well as long answer questions designed to illustrate that students understand the concepts. Exams will be given in person during class. The final exam is cumulative and will be administered during the scheduled final exam period for this course.

Academic integrity and collaboration: These exams are closed book/note and will be timed. Students must not work with others.

Lecture and Field Identification Quizzes

Description: Quizzes will cover material discussed in both lecture and in the field. Quizzes are designed to be “low stakes” so that students have the opportunity to identify gaps in their knowledge before exams. Additionally, quizzes may cover concepts and information from

lectures; but for some quizzes, students may be asked to identify unknown insects to Order. These quizzes will be conducted in the classroom or in the field and may be administered on paper, through Canvas or verbally. Students will be told the location (lecture or in the field), structure and general subject matter of the quizzes via announcements in class and on Carmen at least two days before they are administered.

Academic integrity and collaboration: These low stake assessments will be timed, and this time limit will require that students prepare in advance to take the quiz. Students must not work with other students when taking the quiz.

Physical/Digital Insect Collection

Description: Students will be required to collect (physically catch/pin or digitally photograph) a total of 50 insects from a minimum of 10 orders (a maximum of 10 from any one order). Images included in the digital collection should be of sufficient quality to ID insects to order. The instructor will give you examples of appropriate images when this assignment is given to you. Collections will have specific requirements related to collection information, insect ID and habitat information that will be discussed in class and posted in the assignment description on Canvas.

Academic integrity and collaboration: This assignment is designed to be submitted individually, but students can collaborate with each other during the collection and identification process. However, the final collection must be unique to each student and images of insects cannot be shared among students or taken from outside sources.

Insect Outreach Project/Presentation

Description: Students will either create a Buckeye Yard and Garden Online (BYGL) post (<https://bygl.osu.edu/>) for an insect found in Ohio or record an outreach presentation about a habitat and insect found in that habitat. All students will present their final project by displaying their BYGL post or playing the recorded presentation to the class as indicated in the course schedule.

Academic integrity and collaboration: Students can work individually or in small groups on either project type, but the scope of the assignment will change based on the number of individuals involved. Only one project submission is required per individual or group. The instructor will work with each group separately so that they understand the grading rubric used for their assignment. Regardless of whether students are working individually or in groups, they are permitted to discuss the project with classmates and are encouraged to seek peer-reviews.

Engagement and Professionalism (Attendance & Contributions)

Description: Part of your grade for this course is based on your engagement and professionalism in class. This is more than simple attendance – I expect you to arrive to class on time, be prepared to actively participate in the daily activities, and contribute in meaningful ways to field activities. Please refer below to the attendance policy in the case of an emergency or illness.

Academic integrity and collaboration: Students are encouraged to work collaboratively with other students in the class, especially on assignments where group work is encouraged. Examples of these collaborative behaviors will be discussed at the beginning of the semester and students are welcome anytime to ask the instructor for feedback on their progress in this component of their grade.

Late Assignments and Attendance

All assignments are due at the date and time designated for each; late work is subject to grade reduction of 10% each day it is late. All completed assignments must be posted to our course's Carmen site unless otherwise specified. If you must miss a class, lab or deadline as a result of a university-sanctioned event, you must supply appropriate documentation no less than one week before the event. If you are too ill or have an emergency that interferes with a class, lab or deadline for turning in an assignment, please contact me as soon as possible (preferably within 24 hours of the class period) so that alternative arrangements can be arranged when possible.

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) 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:** Announcements will be made in class, sent through the Announcements tool in CarmenCanvas or via email. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages in CarmenCanvas.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **seven 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



Other Course Policies

Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Tone and civility:** We will maintain a supportive learning community where everyone feels safe and can disagree amicably. Avoid inflammatory statements and sarcasm.
- **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.
- **Email Etiquette:** All emails should begin with a greeting (exp. Hi Dr. Philip), contain complete sentences with proper grammar, and be signed with your name (exp. Thanks, Joe Frank). Emails with attachments and no text will not be opened.

Academic Integrity Policy

See Descriptions of Major Course Assignments for specific guidelines about collaboration and academic integrity in the context of this online class.

Policies for this course

- **Quizzes and exams:** All quizzes and exams must be completed yourself, without any external help or communication. Anyone caught cheating (whether it is seeking or providing answers) will be reported to the Committee on Academic Misconduct and a grade of 0 (zero) will be assessed for that assignment (or quiz or exam). I will not tolerate cheating of any kind in this course.
- **Written assignments:** ALL of your written assignments must be your (or your group's) original work and may be checked by the instructor through Carmen's plagiarism check as part of grading. You should follow the style as directed in each assignment for citations. All written assignments should use proper grammar, spelling, and punctuation. You are encouraged to ask a trusted person to proofread your assignments before you turn them in—but no one should revise or rewrite your work.
- **Falsifying research, work, or results:** All field work or research you conduct is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course may include opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, comparing answers on an assignment is not permitted. If you are unsure about a particular situation, please ask.



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, 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](http://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](http://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](http://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

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.

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.

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 the College of Food, Agricultural, and Environmental Sciences, 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 (slds.osu.edu/covid-19-info/covid-related-accommodation-requests/), 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 as early as possible.

- [CarmenCanvas accessibility](https://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- [CarmenZoom accessibility](https://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)

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 harassment or discrimination or a bias incident, you can report it online and anonymously (if you choose) at <https://equity.osu.edu/>.

Land Acknowledgement Statement

We would like to acknowledge the land that The Ohio State University occupies is the ancestral and contemporary lands of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe and Cherokee peoples. The university resides on land ceded in the 1795 Treaty of Greenville and the forced removal of tribes through the Indian Removal Act of 1830. We honor the resiliency of these tribal nations and recognize the historical contexts that have and continue to affect the Indigenous peoples of this land.

Course Schedule				
Week #	Week of	Topic	Laboratory	Assignments
1	8/22/22	Why study insects, Insect ID	Chadwick Arboretum	
2	8/29/22	Ecosystems of Ohio	Chadwick Arboretum	
3	9/5/22	Insects of Temperate Forests	North Tuttle Park/Olentangy Trail	
4	9/12/22	Aquatic Insects	Olentangy River/OSU Wetland	
5	9/19/22	Insects of Agricultural Importance	Waterman Farm	
6	9/26/22	Insects of Grasslands	Waterman Farm/West Campus Prairie	Insect Collection Progress Check
7	10/3/22	Urban Insects (Online)	Insectary	
8	10/10/22		FALL BREAK (10/14)	MIDTERM EXAM
9	10/17/22	Non-Insect Arthropods		
10	10/24/22	Case Studies: Insect Success	Museum of Biological Diversity	BYGL/Conservation Selection Due
11	10/31/22	Case Studies: Insect Behavior	Goldenrod gall fly collection	
12	11/7/22	Insect Physiological Ecology	VETERAN'S DAY (11/11)	Insect Collection Due
13	11/14/22	Insect Conservation	Low temperature experiments	
14	11/21/22	THANKSGIVING	BREAK	
15	11/28/22	Insect Outreach/ Conservation Presentations		Insect Outreach/ Conservation Presentations Due
16	12/5/22			FINAL EXAM (Th. 12/15, 8-945 am)

** This schedule is tentative. All changes will be discussed in class and/or on Carmen**