



SYLLABUS

ENTMLGY 2101

Insects and Human Affairs: Pests, Plagues, Poisons and Politics
Spring 2022

Course Information

- **Course times and location:** Asynchronous and online
- **Credit hours:** 3
- **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:** by appointment, email instructor or message on Carmen
- **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

None



Course Description

Insects are a daily fact of life, exerting major influence on human affairs over the course of history. The course analyses the extensive and sometimes uncomfortable relationships between insects and humans, including historical roots of insect/human interactions, impact of insects on development of scientific thought, use of insects as experimental models in drug design and military applications.

General Education Expected Learning Outcomes (ELO)

As part of the life sciences category of the General Education curriculum, this course is designed to prepare students to be able to do the following:

1. Understand the basic facts, principles, theories, and methods of modern science.
2. Understand key events in the development of science and recognize that science is an evolving body of knowledge.
3. Describe the inter-dependence of scientific and technological developments.
4. Recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

This course fulfills these expected learning outcomes through the following course specific learning outcomes (with reference to the General Education learning objectives above).

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):

- Explain how insects differ from other arthropod and invertebrate taxa (ELO 1).
- Compare and contrast human and insect respiratory, endocrine, digestive, circulatory and reproductive systems (ELO 1).
- Interpret insect behaviors within their biological contexts (ELO 1).
- Distinguish between scientific, religious, political and popular beliefs (ELO 4).
- Integrate biological information and historical perspectives to evaluate the accuracy of insect representations in art, literature and religious texts (ELO 4).
- Articulate the positive and negative impacts that insects have had on human and veterinary medicine (ELO 3).
- Predict the best methods for managing insect pests in different contexts (ELO 3).
- Examine the role that insects have played in the fields of evolutionary biology, molecular genetics, human medicine, and military operations (ELO 2).



- Biologically interpret various perceptions of insects within societal contexts (ELO 1).
- Attain a personal perception of insects in our society (ELO 2).

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.

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame. Each module contains a mixture of ways to interact with the subject information. These modules will generally include separate sections that contain:

- Weekly overview of expected work
- Recorded lecture(s)
- Reading Assignment(s)
- Link(s) to access and engage with an outside source
- Link to either Discussion or Exploratory Assignment
- Weekly Quiz
- Reflection Question

Credit hours and work expectations: This is a [3] credit-hour course. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around [3] hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to [6] hours of homework (reading and assignment preparation, studying for tests, discussions with classmates for example) 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 discussion forums: two or more times per week

As part of your participation, approximately every three weeks you can expect to post at least three times as part of our substantive class discussion on the week's topics. This

discussion may take place via Carmen discussion or an alternate collaborative way as indicated by your instructor.

Course Materials, Fees and Technologies

Required Materials and/or Technologies

“Insects in Human Affairs” written by Drs. Susan Fisher, Wendy Klooster and Megan Meuti. This book is available in an interactive format and is provided to you FOR FREE on the Carmen course website. This book will be provided as a PDF and most chapters will be available via online text as well.

Note about the online text: The textbook includes questions for you answer to check your understanding of the material presented (usually at the end of each section). These questions are NOT graded. The “points” or stars you earn by answering the questions are just acknowledgement that you answered correctly.

All other reading assignments will be posted to the Carmen course website

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.

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](https://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](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	Percent of grade
Class Intro Materials (Syllabus Quiz; Discussion Rules Agreement)	10	2%
Weekly Quizzes (12, drop lowest 2, 10 points each)	100	20%
Discussion Participation (20 points each)	80	16%
Exploratory Exercises (20 points each)	80	16%
Reading Worksheets (10 points each)	40	8%
Reflection questions (1 point each)	10	2%
Midterm	80	16%
Final Exam	100	20%
Total points	500	100%

See Carmen and course schedule for specific due dates. Weekly work (Quizzes, Exploratory Assignments, Discussion Posts) will be due **Mondays by 11:59PM**. Discussions will have an **additional deadline of Fridays, 11:59PM** to post your first post in the discussion or collaborative document.

Descriptions of Major Course Assignments

Class Intro Materials

Description: Each student will be required to take a short quiz on both the syllabus material, and participate in establishing the parameters for group discussions. By completing these quizzes and assignments, students will indicate that they understand and agree to abide by these two documents and **will serve as a record of initial student participation in this online class. If a student has not engaged in this online class by Week 2, I am required to report this to the university and you may be unenrolled from the course.**



Academic integrity and collaboration: These quizzes are open-book and untimed. Students should work on their own for the syllabus quiz but may collaborate on discussion parameters.

Weekly Quizzes:

Description: Each week, students will be assigned a quiz via Carmen. These weekly quizzes will evaluate student understanding of the lecture material, the reading assignments, and the utilization of outside sources. The two lowest quiz grades will be dropped.

Academic integrity and collaboration: These quizzes are open book and open note. However, they 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.

Discussion Participation

Description: Students will be placed into small discussion groups. Four times during the semester you will be given a prompt by the instructor and expected to interact meaningfully with other students in your group, either through Carmen discussion group or an alternate method as specified by your instructor. Guidelines for meaningful interaction will be given.

Academic integrity and collaboration: When participating in a discussion, students should abide by the parameters established. Students are allowed to discuss topics with others; however, students should post only original ideas. Students must not post material copied from other sources. If students are expressing ideas gathered from additional sources, they should accurately cite this work.

Exploratory Exercises

Description: Students will engage with class material by completing small projects relevant to the course material. This material will be assigned four times during the semester and can include more creative and in-depth expressions of student learning.

Academic integrity and collaboration: Students may discuss these assignments with others, including other students in the class. Students must submit their own work.

Reading Worksheets

Description: As part of most modules, students will be expected to complete a reading assignment from the text. **The material in this reading assignment will not be delivered in an alternate way (in lectures, etc.) but will be tested in weekly quizzes and class exams.** To emphasize the importance of good note taking for this material, students will be given a partial note outline sheet for each of the reading assignments. Students will submit a copy of these notes each week that they are assigned (see course schedule). The notes will be graded only on completeness and effort and the instructors will use this opportunity to correct student errors before exams.



Academic integrity and collaboration: Students may work together in filling out and devising notes. However, all work should be each student's own (freeform written answers should not match another student's).

Reflection Questions

Description: Your instructor will ask brief, 1-point questions of you through an assigned Carmen quiz. Students gain full points for these questions simply by answering, there is no right or wrong answer. These questions will be assigned only for 10 of the 14 weeks. Full credit will be given if a student answers the question, regardless of the response. At any time student may answer "NA" (not applicable) to any question and still receive credit.

Academic integrity and collaboration: These questions are meant to assess student opinions and perceptions, and to allow your instructor to fine tune delivered material during the semester. You are not prohibited to discuss your answers or the questions with fellow students.

Exams (Midterm and Final)

Description: Students will be evaluated on their learning at both the midterm 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 the students understand the concepts.

Academic integrity and collaboration: These exams are open note and done at home. Multiple choice and short answer portions will be timed. Long answers will be take-home and untimed. Students must not work with others.

Extra Credit

Discussions: Students will have the opportunity to participate in two of three additional assignments. Participation requirements in these assignments as well as assignment details will be given by the instructors in the week the bonus assignment is assigned. Students can earn up to 10 extra points for participating in each extra credit assignment.

Welcome to the hive: The professor will host several synchronous Zoom sessions during Weeks 1-2. Students can receive 5 extra credit points for joining one of these sessions, introducing themselves to the professor and staying online for at least 5 minutes. If a student cannot make one of the sessions, they may arrange with the professor for a time that will work instead. Check the class Carmen page for times and dates of these sessions.

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. Quizzes and exams cannot be taken after the instructor releases the answers to the students. If you are unable to turn in an assignment due to an excused absence, 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.
- **Discussion board:** I will check and reply to messages in the discussion boards once at the end of the week (Fridays) and once at the beginning of the week that the discussion is due (Monday evenings).
- **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

Other Course Policies

Discussion and Communication Guidelines

Each discussion group will set the parameters by which they agree to communicate. However, 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:** This class may discuss sensitive topics. 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 agree 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

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/ Module	Week starting with	Online Lecture (OL) Activities	Reading activities (RA)	Engaging with outside sources activities (OS)	Discussions (D) /Exploratory Exercises (EE)	Relevant chapters	Due date for assignments and online quizzes
Part 1: General Entomology							
1	1/10/22	OL1: Taxonomy of the Arthropods	RA1A: Decode Insect Orders (Ch.1)	OS1: BLAST and comparing DNA sequences	EE1: Create phylogenetic trees	Ch. 1	1/18/22 11:59PM *Tuesday due date due to MLK holiday
2	1/18/22	OL2: Insect Morphology <i>Circulation Digestion Excretory</i>	RA1B: Respiration (Ch.2)	OS2: Insect dissection video	D1: Turning a human into an insect.	Ch. 2, 3	1/24/22; 11:59PM
3	1/24/22	OL3: Insect Functioning <i>Metabolism Molting Senses</i>	RA1C: Insect sensory perception (Ch.5)	OS3: Scientific literature and the discovery of JH. <i>Salma and Williams paper</i>	Bonus Activity posted on Carmen	Ch. 4, 5	1/31/22; 11:59PM
Part 2: Insects and Aesthetics							
4	1/31/22	OL4: Insect sex/Insects in music	RA2A: Types of sounds insects make (Ch. 9)	OS4: Listen to insect sounds online	EE2: Interpreting art with insect biology	Ch. 6,9,10	2/7/22; 11:59PM
5	2/7/22	OL5: Insects in Myths and Literature	RA2B: Insects in Greek Mythology (Ch.7)	OS5: Native American Dances Influenced by Insects	D2: Group annotation of The Metamorphosis	Ch.7	2/14/22; 11:59PM
6	2/14/22	OL6: Insects in religion	RA2C: Natural Theology (Ch.8)	OS6: Jainism	None	Ch. 8	2/21/22; 11:59PM
7	2/21/22	Midterm	None	None	None	None	Midterm due 2/28/22; 11:59PM

Week/ Module	Week starting with	Online Lecture (OL) Activities	Reading activities (RA)	Engaging with outside sources activities (OS)	Discussions (D) /Exploratory Exercises (EE)	Relevant chapters	Due date for assignments and online quizzes
Part 3: Insects as Agents of Historical Change							
8	2/28/22	OL8: Fear of insects and blood feeding	RA3A: Delusional Parasitosis (Ch.11)	OA8: Is fear of insects scientifically proven?	Bonus Activity posted on Carmen	Ch. 11,12	3/7/22; 11:59PM
9	3/7/22	OL9: Black Death	RA3B: Effects of Plague on Art and Literature (Ch.16)	OS9: Pre vs. post plague art	EE3- Insect plagues	Ch 15, 16, 17	3/21/22; 11:59PM
	3/14/22	Spring break- no assignments or material					
10	3/21/22	OL10: Malaria, Columbus, and DDT	RA3C: DDT (Ch.19)	None	None	Ch.13, 14, 19	3/28/22 11:59PM
11	3/28/22	OL11: Silk and Germ theory; Insect toxins	RA3D: Insect toxins (Ch. 21)	OL11: Schmidt pain scales	D3-Scientific method	Ch. 21, 24, 26	4/4/22; 11:59PM
Part 4: Insects Working for Us							
12	4/4/22	OL12: Bugs in warfare	None	OS 12: Military documents	Bonus Activity posted on Carmen	Ch. 18, 20, 25	4/11/22 11:59PM
13	4/11/22	OL13:Bugs in research; Bugs and Drugs	RA4A: Punnett Squares (Ch. 25)	None	EE4: Treating patients with insect medicine	Ch. 22	4/18/22; 11:59PM
14	4/18/22	OL14: Pollination Bugs as food	RA4B: Food insecurity and energy flow (Ch. 23)	None	D4: The pollinators that help make your favorite foods	Ch. 23, 27	4/25/22; 11:59PM

Week/ Module	Week starting with	<u>Online Lecture (OL) Activities</u>	<u>Reading activities (RA)</u>	<u>Engaging with outside sources activities (OS)</u>	<u>Discussions (D) /Exploratory Exercises (EE)</u>	Relevant chapters	Due date for assignments and online quizzes
Finals week	4/27/22	Final Exam					Final due 4/29/22; 11:59PM