

## FOR 426/626 FOREST ENTOMOLOGY

**Lecture:** Online, asynchronous

**Laboratory:** Mondays; sect 1: 10-11:50; sect 2: 12-1:50; labs held in TNR 360 or online

**Instructor:** Dr. Holly A Petrillo, Professor of Forest Entomology and Pathology

**Office:** TNR 363      **Email:** hpetrill@uwsp.edu

**Office Hours:** Tuesdays and Thursdays 10-11am or by appointment, via Zoom

**LEARNING OBJECTIVES:** Upon completion of this course, students will be able to:

1. Identify insects common in forest ecosystems, in the Great Lakes region and world-wide, at the family, genus and species level.
2. Diagnose common insect damage and other common damage agents with examples in the lab and in the field, in rural and urban environments.
3. Describe integrated pest management techniques available for common forest pests of the Great Lakes region.
4. Apply forest health monitoring techniques and evaluate results of data collected in class.
5. Learn critical thinking skills as they relate to forest health and forest entomology.

### RESOURCES FOR THIS CLASS:

#### **Required books:**

1. *Managing Insects and Mites on Woody Plants: an IPM approach.* Davidson & Raupp (purchase only)
2. *Forest Entomology lab manual* (provided during class)

#### **Web resources:**

University of Minnesota Extension, <https://apps.extension.umn.edu/garden/diagnose/insect/>

Insect ID, <http://www.insectidentification.org/>

BugGuide.net, <http://bugguide.net/node/view/15740>

Insect ID with picture key, [http://www.discoverlife.org/mp/20q?guide=Insect\\_orders](http://www.discoverlife.org/mp/20q?guide=Insect_orders)

North American Insects and Spiders, <https://www.cirrusimage.com/>

Forestry Images, <http://www.forestryimages.org/>

The Bugwood Network, <http://www.bugwood.org/index.cfm>

Wisconsin DNR Forest Health: <https://dnr.wi.gov/topic/ForestHealth/>

### EXPECTATIONS:

I will provide you with the most up-to-date information and resources on forest health, forest entomology, and related issues that I can. I will be available in and out of class to answer questions and help you learn. I want you all to succeed and feel confident in applying the material we cover during class.

My expectations of you include professionalism, respect for your instructor and classmates, willingness (and even excitement!) to learn new material, inquiry, open-mindedness and academic integrity. Although I understand that all of you may not want to be professional entomologists, I will present the material relevant for professional foresters and appreciate your willingness to understand the importance of insects in forestry.

### ATTENDANCE AND PARTICIPATION:

Attendance is not required during Fall 2020, but weekly **PARTICIPATION** is required. **Lectures** will be recorded and posted each week in Canvas, and can be viewed and/or downloaded at any time. **Labs** will be face-to-face (f2f) and online; students may choose which format is best for them. Weekly lab quizzes are required, and will be the same for all students. Face-to-face labs will be held on Mondays during the scheduled lab times, and online lab material will be posted by the end of the day each Monday. Lab quizzes will be due by Friday at 5pm each week. Lab material will be the same for f2f and online students, therefore if you do not make a f2f session you may view the material you missed online. If you are planning on attending a lab f2f, it is required that you attend the lab section and time you are scheduled for, since seating is limited.

### GRADING:

Grades for this class will be based on (4) lecture quizzes (10% each), (9) lab quizzes (5% each), and your insect collection (20%). Lecture quizzes will mainly be comprised of short essays where students will apply

information learned during lecture and lab. Lecture quizzes will focus on the material since the last quiz, but may draw on material learned throughout the semester. Lab quizzes will be taken online each week (except when noted) and students may drop their lowest 2 quizzes. Lab quizzes will also focus on the material since the last quiz, but may draw on material learned throughout the semester.

*\*\*\*Posting instructor-created course material onto course-sharing websites directly violates the instructor's copyright on his/her academic materials: permission to post instructor-created material on any such site is unequivocally denied\*\*\**

<u>Evaluation type</u>	<u>% of grade</u>	<u>Mean Score</u>	<u>Letter Grade</u>	<u>Mean Score</u>	<u>Letter Grade</u>
Lecture quizzes	40%	100-93	A	79-78	C+
Lab quizzes	40%	92-90	A-	77-73	C
Insect collection	20%	89-88	B+	72-70	C-
		87-83	B	69-68	D+
		82-80	B-	67-60	D
				<60	F

**CANVAS:**

We will be using the new Course Management System, Canvas. Canvas login, support information, and training opportunities are available at [www.uwsp.edu/canvas](http://www.uwsp.edu/canvas). Lecture powerpoints, readings, grades, and all other course information will be posted on our course Canvas page.

**Fall 2020 (TENTATIVE) LAB SCHEDULE**  
**Mondays 10-11:50AM (Lab 1); 12-1:50PM (Lab 2); and ONLINE\*\***  
**ALL INDOOR LABS HELD IN TNR 360, 361 and 359**

<u>LAB</u>	<u>TOPIC</u>
Sept 14	OUTDOOR LAB*: Insect collecting & preservation; Quiz
21	OUTDOOR LAB*: Forest Health Monitoring; Quiz
28	OUTDOOR LAB*: Forest Health Monitoring; Quiz (FHM crown measurement exercise, students complete exercise individually, no lab meeting this day)
Oct 5	Introduction to insect identification & Insect relatives; Quiz
12	Insect orders part 1 (gradual & incomplete metamorphosis); Quiz
19	Insect orders part 2 (gradual metamorphosis); Quiz
26	Insect orders part 3 (complete metamorphosis); Quiz
Nov 2	Defoliators; Quiz
9	Bark & wood-boring insects; Quiz
16	Open lab, work on insect collections; NO QUIZ
23	Insect collections due by 5pm; NO QUIZ
30	Natural enemies; Quiz
Dec 7	Sapsucking insects; Quiz

\*Outdoor labs will be held Weather Permitting; if weather does not allow us to be outside, please meet in your designated lab room (TNR 360, 361 or 359) for indoor lab. Check Canvas before your scheduled lab meeting time for updated information.

\*\*Lab sections may be divided into one-hour time slots, depending on how many students choose to attend lab face-to-face. Each student will have a designated lab room and seat assignment, and it is important to only attend lab during your designated time and room/seat assignment. A survey will be available in Canvas during the first week of classes, where you can tell me if you will be attending lab in person or face-to-face.

**FALL 2020 (TENTATIVE) LECTURE SCHEDULE**  
**Online, asynchronous**

<u>DATE</u>	<u>CLASS TOPICS*</u>	<u>REQUIRED READING ASSIGNMENTS**</u>
<b>Week 1</b>	Class introduction & logistics	
<b>Week 2</b>	Forest health and the role of insects	Haack & Byler 1993
<b>Week 3</b>	Forest health monitoring Lecture Quiz 1 due by Friday, Sept 25 at 5pm	
<b>Week 4</b>	Insect metamorphosis	
<b>Week 5</b>	Insect metamorphosis	
<b>Week 6</b>	Host selection	Baldwin et al. 2006 Erelli et al. 1998
<b>Week 7</b>	Host selection	
<b>Week 8</b>	Insects & Drought Lecture Quiz 2 due by Friday, Oct 30 at 5pm	Mattson & Haack 1987
<b>Week 9</b>	Defoliators	Stoyenoff et al. 1994
<b>Week 10</b>	Defoliator Management	
<b>Week 11</b>	Defoliators & Climate Change Lecture Quiz 3 due by Friday, Nov 20 at 5pm	
<b>Week 12</b>	Bark & wood-boring insects	
<b>Week 13</b>	Bark & wood-boring insect management	
<b>Week 14</b>	Bark beetles & climate change	Bentz et al. 2010 Rosenberger et al. 2017
<b>Week 15</b>	Integrated Pest Management & course wrap-up Lecture Quiz 4 due by Monday, Dec 14 at 5pm	

\*Lecture topics and readings may change, and will be updated weekly as needed on our course Canvas page

\*\*Readings can be found on our FOR 426 course Canvas page and hyperlinked in course powerpoints

#### UWSP FACE COVERING POLICY AND COVID19-RELATED GUIDANCE

- At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the [Disability and Assistive Technology Center](#) to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

Other Guidance:

- Please monitor your own health each day using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
  - As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.

- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- Please maintain these same healthy practices outside the classroom.

## **UWSP COMMUNITY RIGHTS AND RESPONSIBILITIES**

UWSP values a safe, honest, and respectful learning environment. To ensure that each student has the opportunity to succeed, the University has developed a set of expectations for all students and instructors called the *Rights and Responsibilities* document, which can be found at

<http://www.uwsp.edu/stuaffairs/Pages/rightsandresponsibilities.aspx>

Academic integrity is essential to the University mission and success in life. Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated. Do not do it! The minimum penalty for a violation of academic integrity is a failure (zero) for the assignment. See “Student Academic Standards and Disciplinary Procedures” section of the *Rights and Responsibilities* document (<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>).

Trust between students and instructors is of paramount importance in academic settings. Academic dishonesty will not be tolerated in the classroom (e.g., cheating on exams) or in research efforts (e.g., online assignments). Students found cheating will be punished to the fullest extent that University policy permits.

## **AMERICANS WITH DISABILITIES ACT**

The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations to students with disabilities. More information about UWSP’s policies can be found at

<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf>

Students with disabilities requiring accommodations should contact the Disability and Assistive Technology Center (Rm. 609, Learning Resource Center; (715)346-3365) during the first three weeks of the semester. If an accommodation is granted by the Disability and Assistive Technology Center, an accommodations request form should be provided to and discussed with the instructor. I ask that any accommodations request be brought to my attention at least one week prior to the need for accommodation, or as soon as it is practical to do so. I will be happy to assist in any way that I can.

## **CELL PHONE AND OTHER ELECTRONICS POLICY**

The use of cell phones or other related and similar devices is not permitted during class. Cell phones and other electronic devices should be turned off before class begins. It is disruptive to students and instructors to have students using phones or to hear phones ringing (including ringers on vibrate mode). Students found using such devices may be asked to turn them off, and/or leave class. If you are expecting a call that cannot wait until after class, please make sure to sit close to the door and let the instructor know before class that you may have to leave during class time. If you would like to use a laptop, tablet or similar device for taking notes, please ask the instructor before class begins. You will be asked to turn off your device if found to be distracting others or if using the device for something other than taking notes.

## **EMERGENCY PROCEDURES**

-In the event of a medical emergency call 911 or use a Red Emergency Phone on outside of TNR 356. Offer assistance if trained and willing to do so. Guide Emergency Responders to victim.

-In the event of a tornado warning, exit your lab room and go down the West side staircase. The first floor North hallway and rooms 159, 157 and 153 serve as the closest tornado shelters.

-In the event of a fire alarm, evacuate the building in a calm manner. Meet on the West side of the TNR building, in parking lot E. Notify instructor or emergency command personnel of any missing individuals.

- Active Shooter – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of Emergency Responders.
- See UW-Stevens Point Emergency Management Plan at [www.uwsp.edu/rmgt](http://www.uwsp.edu/rmgt) for details on all emergency response at UW-Stevens Point.