FOR 424/624 FOREST PATHOLOGY

Instructor: Dr. Holly A. Petrillo
Email: hpetrill@uwsp.edu
Office: TNR 363
Office Hours: M 12-1, T 10-11, or by appointment, or just stop in!

Lecture: M&W 11-11:50; TNR 120
Lab: T 11-12:50 (section 1) OR 1-2:50 (section 2), TNR 360

LEARNING OBJECTIVES: This course is intended to provide students with the principles of forest pathology. Specific objectives include:
1. Understand the basic biology, ecology, and significance of disease- and decay-causing agents in a variety of settings, including natural forests, managed plantations, urban areas, nurseries and wood storage facilities.
2. Diagnose common pathogen damage with examples in the lab and in the field.
3. Describe management techniques available for common forest pathogens of the Great Lakes region.

RESOURCES FOR THIS CLASS:
We will not be using a textbook for our course. I will assign readings to accompany lecture topics; readings will be posted in Canvas and also will be available outside of my office. Readings will be taken from scientific literature, newsletters, and other relevant material. You will be expected to do the assigned readings, and material from readings will be incorporated into lecture exams.

These links will be useful in supplementing lecture and lab material:
Christmas Tree Pest Manual: https://www.fs.usda.gov/naspf/publications/christmas-tree-pest-manual-third-edition
Field Guide to Tree Diseases of Ontario: http://www.natureindeed.com/PDFs/field_guide_to_tree_diseases_in_ontario.pdf
What's wrong with my plant? (MN): http://www.extension.umn.edu/garden/diagnose/
Wisconsin Plant Disease Clinic, including a monthly pathogen-related newsletter: https://pddc.wisc.edu/?q=pddc%2Fpddcgraphics%2Findex.htm
Professor Blanchette's lab at the University of MN: http://forestpathology.cfans.umn.edu/default.htm
Michigan State University's Forest Pathology page: https://forestpathology.msu.edu/
Forest & Shade Tree Pathology: http://www.forestpathology.org

ATTENDANCE:
Your attendance in class is expected and essential for success in this course. Absence during an exam or quiz will result in a zero unless you have contacted me beforehand, or have an unexpected situation such as an emergency or illness. Please contact me as soon as possible if such a situation occurs.
****Make-up exams will only be given when a valid excuse is presented to the instructor (or by prior arrangement). Arrangements for a make-up exam must be made prior to the exam period or no later than 24 hours after the missed exam.*

GRADING:
Grades for this class will be based on exams (midterm and final), lab quizzes (3), professional email responses, and your oak wilt management plan. Grades will be calculated by the following breakdown:

Evaluation type	% of grade
Mid-term exam	15%
Final exam	15%
Lab quizzes (3)	30%
Oak wilt Mgmt plan	25%
Professional emails	15%

Mean Score	Letter Grade	Mean Score	Letter Grade
>/=92.5	A	79.4-77.5	C+
92.4-89.5	A-	77.4-72.5	C
89.4-87.5	B+	72.4-69.5	C-
87.4-82.5	B	69.4-67.5	D+
82.4-79.5	B-	67.4-59.5	D
		<59.5	F

FOR 424/624 SPRING 2019 (TENTATIVE) LECTURE SCHEDULE
Mondays & Wednesdays 11-11:50am, TNR 120

Week	**Lecture Topics**	**Readings***
Week 1	Introduction to forest pathology	
Week 2	Vascular wilt diseases (M); Fungi (W)	
Week 3	Fungi contd.	Mycorrhizae 1,2,3
Week 4	Canker diseases (M); Viruses and phytoplasma diseases (W) *Email response #1*	Virus1
Week 5	Root & Lower Stem Diseases (M); Bacteria (W)	
Week 6	Parasitic plants	Mistletoe & Fire
Week 7	Nematodes	
Week 8	**March 11 (M): EXAM 1 DURING LECTURE** March 13 (W): Biological control	
	March 18 & 20: SPRING BREAK NO CLASSES	
Week 9	March 25 (M): Pathogens & forest health **March 27 (W): NO CLASS, FOR 436 FIELD TRIP**	
Week 10	Pathogens & forest health; damage diagnosis *Email response #2*	
Week 11	Exotic pathogens	Lovett et al.
Week 12	Declines	
Week 13	Fruit tree diseases	
Week 14	Forest pathogens and climate change *Email response #3*	Climate change 1 & 2
Week 15	Oak Wilt Management Plan discussions/ presentations	
May 15	**FINAL EXAM DUE BY 2:30pm**	

FOR 424/624 SPRING 2019 (TENTATIVE) LAB SCHEDULE
Tuesdays 11-12:50 (Lab 1) OR 1-2:50 (Lab 2); TNR 360

Date	**Lab Topic**
Jan 22	Introduction & organization; Rust diseases
Jan 29	Vascular wilt diseases
Feb 5	**LAB QUIZ 1**
Feb 12	Cankers
Feb 19	Root and lower stem diseases
Feb 26	**LAB QUIZ 2**
March 5	Schmeeckle Oak Wilt visit (weather permitting)
March 12	Foliar disorders of angiosperms
March 19	*****SPRING BREAK*** NO LAB**
March 26	Foliar disorders of gymnosperms
April 2	**LAB QUIZ 3**
April 9	Field trip (weather permitting)
April 16	Field trip (weather permitting)
April 23	Field trip (weather permitting)**; Oak Wilt Management Plan due to Canvas at 11:59pm**
May 7	Field trip (weather permitting)

*****Readings are posted in CANVAS, hyperlinked in PowerPoints (when possible), and are available outside of my office (TNR 363); please see CANVAS for most updated reading assignments
Lecture notes and other announced material can be found on the CANVAS site for FOR 424/624

Oak Wilt Management Plan for Schmeeckle Reserve

We will be creating Oak Wilt Management plans for Schmeeckle Reserve as part of your forest pathology class this semester. Jim Buchholz, Director of Schmeeckle, will visit our class and give you a history of oak wilt in the Reserve, and other parameters to help you develop your plan. We will visit the known oak wilt sites during class, and will develop a map of the oak wilt pockets as a class, but you will need to visit the site on your own time as well. You may work on the Management Plan alone, or in groups of 2 people. Each person must turn in a management plan document to CANVAS, even if you are working with someone else. Your oak wilt management plan is worth 25% of your final course grade.

Your Oak Wilt Management Plan will include:

1. A professional report addressed to Jim Buchholz, Director of Schmeeckle Reserve. The report should include:
    a. A cover page, including the author(s) of the plan
    b. Statement of the problem/ description of oak wilt
    c. Map of Schmeeckle Reserve with oak wilt pockets delineated
    d. Detailed description of management recommendations, including justification and cost estimates/ comparisons where possible
2. After everyone has turned in their management plants, we will collectively develop recommendations for Jim Buchholz, and present management options to him, during the last week of lecture (May 6 & 8). Details of the requirements for these days will be available in Canvas.

Professional Email Responses

Throughout your career you likely will receive emails from the public, with questions about tree health. As part of this forest pathology class, you will be required to respond, in a professional manner as an expert in the field, to three public email inquiries related to tree health throughout the semester. Each email response is worth 20 points; 15 points for accuracy of your response, and 5 points for timeliness of your reply (within 2 business days). One point will also be subtracted for each error, including grammatical errors or unprofessional word or phrase choices. You should always address the author by the way they sign their email. Professional email responses are worth 15% of your final course grade.

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., any lab or other assignments). Students found cheating will be punished to the fullest extent that University policy permits.

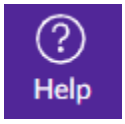
AMERICANS WITH DISABILITIES ACT
The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations to students with disabilities. More information about UWSP's policies can be found at http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf
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
While you may use your cell phone to take pictures of pathogen specimens in lab, you may not use your cell phone to talk or text during class. 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 will be asked to turn off their devices, 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 pictures or notes.

EMERGENCY PROCEDURES
-In the event of a medical emergency call 911 or use a Red Emergency Phone outside of TNR 151 (go out to the room and turn right). If during lab, there is an emergency phone outside of the lab (TNR 360) and outside of TNR 120. Offer assistance if trained and willing to do so. Guide Emergency Responders to victim.
-In the event of a tornado warning, the TNR 110 serves as a tornado shelter.
-In the event of a fire alarm, evacuate the building in a calm manner. Meet on the West side of the TNR building. 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 for details on all emergency response at UW-Stevens Point.

Technical assistance:

NEED CANVAS HELP?

Click on the 

button in the global (left) navigation menu in Canvas and note the options that appear:

Support Options	Explanations
Ask Your Instructor a Question Submit a question to your instructor	Use **Ask Your Instructor a Question** sparingly; technical questions are best reserved for Canvas personnel and help as detailed below.
Chat with Canvas Support (Student) Live Chat with Canvas Support 24x7!	**Chat**ting **with Canvas Support (Student)** will initiate a *text chat* with Canvas support. Response can be qualified with severity level.
Contact Canvas Support via email Canvas support will email a response	**Contact**ing **Canvas Support via email** will allow you to explain in detail or even upload a screenshot to show your particular difficulty.
Contact Canvas Support via phone Find the phone number for your institution	Calling the Canvas number will let Canvas know that you're from UWSP; phone option is available 24/7.
Search the Canvas Guides Find answers to common questions	**Search**ing **the Canvas guides** connects you to documents that are searchable by issue. You may also opt for **Canvas video guides.**
Submit a Feature Idea Have an idea to improve Canvas?	If you have an idea for Canvas that might make instructions or navigation easier, feel free to offer your thoughts through this **Submit a Feature Idea** avenue.

All options are available 24/7; however, if you opt to email your instructor, s/he may not be available immediately.

- Self-train on Canvas through the Self-enrolling/paced Canvas training course