

**FOR 424/624 FOREST PATHOLOGY****Instructor:** Dr. Holly A. Petrillo**Lecture:** T&TH 10-10:50; TNR 170**Email:** [hpetrill@uwsp.edu](mailto:hpetrill@uwsp.edu)**Lab:** T 11-12:50 (section 1) OR 1-2:50 (section 2), TNR 360**Office:** TNR 363**Office Hours:** Mondays 3-4pm, Thursdays 11am-12pm, by appointment, or just stop in! Zoom office hours also available by request.**LEARNING OUTCOMES:** This course is intended to provide students with the principles of forest pathology. After successful completion of this course, students will be able to:

1. Explain 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.

**The content and learned outcomes associated with FOR 424/624 are aligned with the following SAF accreditation competencies:***Ecology and Biology*

- an ability to make ecosystem, forest and stand assessments;
- knowledge of tree physiology and the effects of climate, pollutants, moisture, nutrients, genetics, insects and diseases on tree and forest health and productivity

**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. 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:

<http://cues.cfans.umn.edu/2017%20Updates%20CFANS%20Dec%2028%202017/2014%20USDA%20FS%20christmas-tree-pest-manual-3rd-editionlowres.pdf>

Field Guide to Tree Diseases of Ontario:

[http://www.natureindeed.com/PDFs/field\\_guide\\_to\\_tree\\_diseases\\_in\\_ontario.pdf](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>

**INSTRUCTOR EXPECTATIONS:**

I will provide you with the most up-to-date information and resources on forest health, forest pathology, and related issues that I can. I will be available in and outside 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 pathologists, I will present the material relevant for professional foresters and appreciate your willingness to understand the importance of forest pathogens and related disturbances in forest management and ecology.

**ATTENDANCE AND PARTICIPATION:**

Both lectures and labs are in-person and 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. Most importantly, a positive attitude and hard work will facilitate you achieving the grade you want.

**\*\*\*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, and your pathogen management plans. Grades will be calculated by the following breakdown:

<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 exams (2)	35%	>/=92.5	A	79.4-77.5	C+
Lab quizzes (3)	35%	92.4-89.5	A-	77.4-72.5	C
Pathogen Management Plans (2)	30%	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

*\*graduate students will have additional responsibilities in class that will contribute to the final grade; graduate students should attend the instructor's office hours within the first 2 weeks of class to discuss responsibilities*

### CANVAS:

We will be using the 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, announcements, and all other course information will be posted on our course Canvas page.

\*All material posted in Canvas is the intellectual property of Dr. Holly Petrillo and may not be distributed without consent.

### 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 Resource Center (CCC 108; (715) 346-3365 during the first three weeks of the semester. If an accommodation is granted by the Resource 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.

### EMERGENCY PROCEDURES

-In the event of a medical emergency call 911 or use a Red Emergency Phone outside of TNR 170. If during lab, there is an emergency phone outside of the lab (TNR 360). An AED is outside of TNR 153. Offer assistance if trained and willing to do so. Guide Emergency Responders to victim.

-In the event of a tornado warning, TNR 150 and the 1<sup>st</sup> floor south hallway 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](http://www.uwsp.edu/rmgt) for details on all emergency response at UW-Stevens Point.

**FOR 424/624 SPRING 2023 (TENTATIVE) LECTURE & LAB SCHEDULE**  
**Tuesdays & Thursdays 10-10:50am, TNR 170**

<b>Week</b>	<b>Lecture Topics</b>
Week 1	Lecture: Introduction to forest pathology <b>NO LAB 1<sup>ST</sup> WEEK OF CLASS</b>
Week 2	Lecture: Rust diseases (T); Fungi (TH) <i>Lab: Rust diseases</i>
Week 3	Lecture: Vascular wilt diseases (T); Fungi contd.(TH) <i>Lab: Vascular wilt diseases</i>
Week 4	Lecture: Fungal mutualists <i>Lab: Lab quiz 1</i>
Week 5	Lecture: Canker diseases (T); Viruses and phytoplasma diseases (TH) <i>Lab: Canker diseases</i>
Week 6	Lecture: Root & Lower Stem Diseases (T); Bacteria (TH) <i>Lab: Root &amp; lower stem diseases</i> <b>Pathogen management plan draft #1 due</b>
Week 7	Lecture: Parasitic plants <i>Lab: Lab quiz 2</i>
Week 8	Lecture: <b>March 14 (T): EXAM 1 DURING LECTURE</b> March 16 (TH): Nematodes <i>Lab: Wood decay organisms</i>
	<b>March 20-24: SPRING BREAK NO CLASSES</b>
Week 9	Lecture: Foliar disorders of gymnosperms (T); Abiotic disorders (TH) <i>Lab: Foliar diseases of gymnosperms</i>
Week 10	Lecture: Foliar diseases of angiosperms (T); Pathogens & forest health (TH) <i>Lab: Foliar disorders of angiosperms</i>
Week 11	Lecture: Damage & disease diagnosis <i>Lab: Lab quiz 3;</i> <b>Pathogen Management Plan draft #2 due</b>
Week 12	Lecture: Exotic pathogens <i>Lab: Outdoor field lab (weather permitting)</i>
Week 13	Lecture: Declines <i>Lab: Outdoor field lab (weather permitting)</i>
Week 14	Lecture: Fruit tree diseases <i>Lab: Outdoor field lab (weather permitting)</i>
Week 15	Lecture: Forest pathogens and climate change <i>Lab: Outdoor field lab (weather permitting);</i> <b>Final pathogen management plans due May 9 by 11:59pm</b>
<b>May 16</b>	<b>Final Exam 2:45-4:45pm</b>

**Lecture powerpoints and other announced material** can be found on the CANVAS site for FOR 424/624 Readings are posted in CANVAS, and hyperlinked in PowerPoints when possible

\*\*Outdoor field labs are required, see Canvas for updated instructions

**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.

## UWSP COMMUNITY RIGHTS AND RESPONSIBILITIES

### Professionalism Statement

Students in the College of Natural Resources are pursuing courses of study that prepare them for careers as natural resources professionals. Thus, CNR students and faculty/staff are expected to exhibit conduct and attitudes appropriate to professionals. Conduct and attitudes appropriate for professionals include, but are not restricted to,

1. The UWSP Student Rights and Responsibilities are available via: [www.uwsp.edu/centers/rights](http://www.uwsp.edu/centers/rights)
2. Attitudes appropriate for resource professionals of the 21<sup>st</sup> Century:
  - a. Respect for others and for their ideas;
  - b. Appreciation for ethnic and gender diversity in the workplace;
  - c. Sensitivity to environmental quality;
  - d. Adherence to professional ethics, e.g. the Society of American Foresters Code of Ethics and other professional organization's codes of ethics.

Therefore, academic misconduct will not be tolerated.

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

### UWSP 14.03 ACADEMIC MISCONDUCT SUBJECT TO DISCIPLINARY ACTION.

- (1.) Academic misconduct is an act in which a student:
- (a) Seeks to claim credit for the work or efforts of another without authorization or citation;
  - (b) Uses unauthorized materials or fabricated data in any academic exercise;
  - (c) Forges or falsifies academic documents or records;
  - (d) Intentionally impedes or damages the academic work of others;
  - (e) Engages in conduct aimed at making false representation of a student's academic performance;
- or
- (f) Assists other students in any of these acts.
  - (g) Violates electronic communication policies or standards as agreed upon when logging on initially (See [uwsp.edu/it/policy](http://uwsp.edu/it/policy)).

(2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

### UWSP 14.04 DISCIPLINARY SANCTIONS.

- (1) The following are the disciplinary sanctions that may be imposed for academic misconduct in accordance with the procedures of s. UWSP 14.05, 14.06 or 14.07:
- (a) An oral reprimand;
  - (b) A written reprimand presented only to the student;
  - (c) An assignment to repeat the work, to be graded on its merits;
  - (d) A lower or failing grade on the particular assignment or test;
  - (e) A lower grade in the course;
  - (f) A failing grade in the course;

- (g) Removal of the student from the course in progress;
- (h) A written reprimand to be included in the student's disciplinary file;
- (i) Disciplinary probation; or
- (j) Suspension or expulsion from the university.

(2) One or more of the disciplinary sanctions listed in sub. (1) may be imposed for an incident of academic misconduct.

## University of Wisconsin Stevens Point College of Natural Resources-Principles of Professionalism

The College of Natural Resources at the University of Wisconsin – Stevens Point prepares students for success as professionals in many fields. As a professional, there are expectations of attainment of several personal characteristics. These include:

### Integrity

Integrity refers to adherence to consistent moral and ethical principles. A person with integrity is honest and treats others fairly.

### Collegiality

Collegiality is a cooperative relationship. By being collegial you are respecting our shared commitment to student education through cooperative interaction. This applies to all involved in the process: students, staff, faculty, administration and involved community members. You take collective responsibility for the work performed together, helping the group attain its goals.

### Civility

Civility refers to politeness and courtesy in your interactions with others. Being civil requires that you consider the thoughts and conclusions of others and engage in thoughtful, constructive discussion to express your own thoughts and opinions.

### Inclusivity

Inclusivity requires you to be aware that perspective and culture will control how communication is understood by others. While many values are shared, some are quite different. These differences in values should be both considered and respected.

### Timeliness

Timeliness is the habit of performance of tasks and activities, planned in a way that allows you to meet deadlines. This increases workplace efficiency and demonstrates respect for others' time.

### Respect for Property

Respect for property is the appreciation of the economic or personal value an item maintains. Maintaining this respect can both reduce costs (increase the operable life of supplies and equipment) as well as demonstrate respect for others rights.

### Communication

Professional norms in communication require that you demonstrate the value of your colleagues, students, professors or others. The use of appropriate tone and vocabulary is expected across all forms of communication, whether that communication takes place face to face, in writing or electronically.

### Commitment to Quality

Quality is the ability to meet or exceed expectations. By having a commitment to quality, we intend to provide a learning environment that is conducive to learning. Intrinsic to this commitment to quality is defining expectation (committed to in a syllabus through learning outcomes), implementation (with quality control in place) and assessment (where meeting of learning outcomes is determined).

**Commitment to Learning**

**Learning is a lifelong process. By being committed to learning you are providing a model for all to follow. This model is not only professor to student but involves all combinations of people within our university and broader community**

Adherence to this compact is required of the faculty and staff of the College of Natural Resources and of all students enrolled in College of Natural Resources courses.

**Forestry Anti-harassment Statement****Introduction**

In adopting this statement, the forestry discipline within the College of Natural Resources (CNR), at the University of Wisconsin-Stevens Point (UWSP) has expectations for professional behavior of its students, staff, faculty, and other associated parties. Anyone who has a reasonable belief that they, or another student, staff, faculty or guest, have been the victim of harassment, bullying, or discrimination, or any other violation in the statement herein, are encouraged and expected to report the conduct. See reporting options and guidelines at the end of this document.

The forestry discipline within the College of Natural Resources is committed to creating a safe, inclusive, and professional environment. The forestry discipline operates under the UWSP harassment, discrimination, and retaliation prevention guidelines, copied here:

*“The University of Wisconsin-Stevens Point (UWSP) is committed to fostering an environment that is safe, respectful, and inclusive to all and to educate all employees on these important issues. In addition, we are obligated, under Regent policy and federal regulations, to ensure our employees are informed on the issues of unlawful discrimination, harassment, and sexual violence.”*

**Statement**

The forestry discipline, following the lead of the Society of American Foresters which accredits the B.S. forestry degree, believes we all have a responsibility in creating a safe, inclusive, professional environment in all forestry-related activities and events. All forms of discrimination, harassment, and bullying are prohibited. This applies to all participants in all settings (online and in-person) and locations (on- and off-campus) where forestry classes and associated activities are conducted, including student organization events and activities, committee meetings, workshops, conferences, and other work and social functions where employees, volunteers, sponsors, vendors, or guests are present.

Discrimination is prejudicial treatment of individuals or groups of people based on their race, color, creed, religion, age, sex, sexual orientation, gender identity or expression, national origin, ethnicity, ancestry, disability, pregnancy, marital or parental status, veteran status, or any other category protected by law.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature that creates an intimidating, hostile, or offensive environment. Sexual harassment constitutes discrimination and is illegal under federal, state, and local laws.

Bullying is unwelcome, aggressive behavior involving the use of influence, threat, intimidation, ridicule, hazing or coercion to dominate others in the professional environment. Bullying behavior may go beyond characteristics protected by applicable laws, including but not limited to, political views, dress, or other outward physical appearances.

Other types of harassment include any verbal or physical conduct directed at individuals or groups of people because of their race, ethnicity, color, national origin, sex, sexual orientation, gender identity, age, religion, disability, veteran status, or any other characteristic protected by applicable laws, that creates an intimidating, hostile, or offensive environment.

The following list, while not exhaustive, includes examples of unacceptable behavior: slurs, jokes, threats, or derogatory comments relating to the characteristics noted above. Examples of inappropriate physical harassment that violate this statement include, but are not limited to: assault, unwanted touching, or impeding or blocking movement. In addition, no individual may be denied admission to, or participation in or the benefits of, any UWSP-associated events. Similarly, the display or circulation of derogatory or demeaning posters, cards, cartoons, emails, texts, videos, and graffiti which relate to characteristics noted above violate this statement.

### **Reporting**

Students, staff, faculty, or guests associated with Forestry-related programming who experience or witness incidents of harassment are strongly encouraged to report the incident. The Forestry discipline strongly urges the prompt reporting of complaints or concerns so that rapid and constructive action can be taken. Reporting can be done online or in person, to a faculty or staff member, and/or the UWSP Dean of Students. Anonymous reporting is available.

The UWSP Title IX Website is the home for all information related to harassment and discrimination, including reporting options, student and employee resources, and information about what happens after a report is submitted:

<https://www.uwsp.edu/titleix/Pages/default.aspx>

### **Society of American Foresters Code of Ethics Preamble**

Service to society is the cornerstone of any profession. The profession of forestry serves society by fostering stewardship of the world's forests. Because forests provide valuable resources and perform critical ecological functions, they are vital to the wellbeing of both society and the biosphere.

Members of SAF have a deep and enduring love for the land, and are inspired by the profession's historic traditions, such as Gifford Pinchot's utilitarianism and Aldo Leopold's ecological conscience. In their various roles as practitioners, teachers, researchers, advisers, and administrators, foresters seek to sustain and protect a variety of forest uses and attributes, such as aesthetic values, air and water quality, biodiversity, recreation, timber production, and wildlife habitat.

The purpose of this Code of Ethics is to protect and serve society by inspiring, guiding, and governing members in the conduct of their professional lives. Compliance with the code demonstrates members' respect for the land and their commitment to the long-term management of ecosystems, and ensures just and honorable professional and human relationships, mutual confidence and respect, and competent service to society.

On joining the SAF, members assume a special responsibility to the profession and to society by promising to uphold and abide by the following:

### **Principles and Pledges**

- 1. Foresters have a responsibility to manage land for both current and future generations. We pledge to practice and advocate management that will maintain the long-term capacity of the land to provide the variety of materials, uses, and values desired by landowners and society.**
- 2. Society must respect forest landowners' rights and correspondingly, landowners have a land stewardship responsibility to society. We pledge to practice and advocate forest management in accordance with landowner objectives and professional standards, and to advise landowners of the consequences of deviating from such standards.**

3. **Sound science is the foundation of the forestry profession. We pledge to strive for continuous improvement of our methods and our personal knowledge and skills; to perform only those services for which we are qualified; and in the biological, physical, and social sciences to use the most appropriate data, methods, and technology.**
4. **Public policy related to forests must be based on both scientific principles and societal values. We pledge to use our knowledge and skills to help formulate sound forest policies and laws; to challenge and correct untrue statements about forestry; and to foster dialogue among foresters, other professionals, landowners, and the public regarding forest policies.**
5. **Honest and open communication, coupled with respect for information given in confidence, is essential to good service. We pledge to always present, to the best of our ability, accurate and complete information; to indicate on whose behalf any public statements are made; to fully disclose and resolve any existing or potential conflicts of interest; and to keep proprietary information confidential unless the appropriate person authorizes its disclosure.**
6. **Professional and civic behavior must be based on honesty, fairness, good will, and respect for the law. We pledge to conduct ourselves in a civil and dignified manner; to respect the needs, contributions, and viewpoints of others; and to give due credit to others for their methods, ideas, or assistance.**