

PLPT 210 Plant Pathogens and Disease

Spring 2025 Syllabus

Section 001: 9:00 – 9:50 AM Tuesdays and Thursdays

280 Plant Sciences Hall (ARR - Goodding Learning Center)

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Teaching Assistant Ben Wheeler PhD student Email: bwheeler7@huskers.unl.edu	Office hours: By arrangement only

Catalog course description

This course aims to illustrate the impact that plant diseases can have on society and the environment. The course will serve as an introduction to fungi, bacteria, nematodes, and viruses that cause plant diseases. We will cover the strategies used in managing plant diseases in agricultural and landscape environments.

Prerequisites

AGRO 131, BIOS 101, ENTO 115, HORT 131, or LIFE 120.

Course format

2 credit hours; classes meet for 50 minutes twice a week for 15 weeks

What will you learn in this course? (Learning Objectives)

By the end of the course, you will be able to explain orally and in writing:

- Local and global impacts of plant diseases throughout history and current emerging diseases.
- How the components of the disease triangle (the pathogen, the plant, and the environment) interact to favor disease.
- The most important biological differences between fungi, bacteria, nematodes, and viruses that cause plant diseases.
- The advantages and limitations of the most common strategies used for managing plant diseases.

What materials will you need for this course and where will you find course materials?

There is no required textbook for this class. You need a computer with good internet connection. You should bring a laptop or smart phone to class sessions to conduct internet searches and take pop quizzes. All materials required for this course (videos, reading, scheduled quizzes, exams, and exercises) are posted in Canvas. You will also use Canvas to submit all

assignments and take quizzes and exams, and when possible, send messages to the instructor. To enter Canvas go to My.UNL, or <https://canvas.unl.edu/login/cas>.

What activities will you engage in during this course?

See the 'Schedule of Topics and Activities' for an overview of when activities are held. Activities and assignments will be posted in Canvas on a weekly basis. Activities include the following:

Quizzes (required)

There will be 7 quizzes over the semester, each covering the information presented in in-class and online lectures, discussion sessions and “required” reading over the previous 2 weeks. Each quiz is available in Canvas from Thursday morning 8 AM until Sunday 11:59 PM the week it is scheduled. In each quiz there are 10 questions (T/F, multiple choice, multiple answers), each question worth one point. You have 30 minutes to complete each quiz once you open it. Although quizzes are not proctored, they are intended to be taken closed book. While there are 7 quizzes to be taken during the course, only the highest 6 quiz scores will be used in calculating your final grade (i.e., the lowest quiz score is dropped). The total from the 6 quizzes is worth 40% of your final grade. There are no make-ups allowed for any missed quiz except in the case of Canvas or computer malfunctions.

- **Exercises (required)**

There will be 4 outside-of-class “exercises” (aka homework assignments) over the semester. Some exercises involve “hands-on” activities (e.g. finding and documenting disease symptoms and signs), while others might involve researching information on the internet. Each exercise assignment will be posted on at least two weeks prior to its due date. You must submit your exercise write-up via Canvas before its deadline. Immediately following the deadline, your submission will be evaluated by instructors. Only those exercise write-ups submitted by the deadline will be distributed for peer review and will receive a score. In other words, if you do not submit your exercise write-up in time, you will not receive credit for it.

- **Factsheets (required)**

You will design two (2) factsheets on relevant topics in plant pathology. To improve your teamwork skills, at least one of these will be a group assignment and each group will be asked to submit a report of the contributions of each member. The details and format of these factsheets will be discussed in class.

- **Exams (required)**

There is a **midterm and a final exam**, each covering approximately half of the course. Although the final exam will focus on topics covered in second half of the course, it does require that you have knowledge of content from the first half. Both exams are given on-line and available over a 2-day period. Although the exams are not proctored, they are intended to be taken closed book. Each exam is in 2 parts and each part can be opened at any time during the exam period. One part has the same format as the quizzes (i.e., 10 T/F or multiple choice- type questions; 30-minute time length; can be opened only once). The other part consists of 2 to 3 short essay

questions. The essay portion may be opened multiple times, but you must submit your answers within 2 hour of first opening. Together, they comprise 40% of the final grade. There are no make-ups allowed for any missed exam except in the case of computer malfunction or illness.

- **Extra credit activities (optional)**

There will be a number of 'pop-quizzes' and optional activities, e.g. review quiz at the end of assigned recorded lectures over the semester. While there is no penalty for not completing any of these optional activities, they are opportunities to earn extra credit. Each activity will be scored. Depending upon the number of extra credit points you accumulate by the end of the course, it is possible to earn up to an additional 10% to your final grade. This would be equivalent to raising your grade from a C to a B, or from a B to an A.

- **In-class lectures and discussion sessions (optional)**

Every class session will involve a combination of lecture and discussion. Lecture slides are posted in Canvas by the evening after the lecture.

- **Recorded lectures and videos (optional)**

Viewing of recorded lectures and video may be required in some weeks. There will be a short (3 to 5 question) on-line optional quiz at the end of each lecture/video to review the content. Points earned in each optional quiz will go towards the extra-credit total. The information presented in every recorded lecture/video will be discussed in class. Therefore, it is important to view an assigned recorded lecture before you attend the associated discussion session.

- **Reading (optional)**

Readings in the form of on-line articles and pdf versions of book chapters are provided to augment lectures or to present different perspectives from the lectures. Some are posted as "required" in which case the reading assignment must be completed before the associated in-class discussion session. Other readings are posted as "supplemental" and the reading of these documents is optional.

How will your final grade be determined?

Cumulative scores from each of the three required activities (exams, quizzes, and exercises) will be weighed in this manner: **exams: 40%** of the grade; **quizzes** (only top 7 out of 8 scores count): **21%**; **exercises/assignments: 24%**, and **factsheets: 15%**. The percentages earned in each of the four categories are added together to determine the 'total percentage'. Additional percentage points (up to 10%) earned from extra credit assignment will be added to the total percentage from required activities to yield the 'final percentage'.

The final course grade will be determined from the final percentage according to this scale:

Min Percent	Points	Grade
97%	970-1000	A+
94%	940-969	A
91%	910-939	A-
88%	880-909	B+
85%	850-879	B
82%	820-849	B-
75%	750-819	C+
70%	700-749	C (Pass)
67%	670-699	C-
63%	630-679	D+
60%	600-629	D
57%	570-599	D-
<57%	0-570	F

Attendance policy

Because so much the course content will be provided through the in-class lectures and discussions, attendance of every scheduled lecture and discussion session **is expected**. Although you will not be graded on attendance, you will be asked to sign in into each class session or participate in in-class surveys track your attendance. Unexcused absence from more than 25% of the 30 scheduled class sessions (i.e., 8 sessions) may result in a 10% deduction from the final score (drop in one grade).

Late assignment policy**1. Due Dates:**

All assignments must be submitted by the specified due date and time. Due dates will be clearly stated in the syllabus and on the course's online platform (Canvas or otherwise specified).

2. Penalties for Late Submission:

Assignments submitted more than 48 hours after the due date will incur a 30% penalty. Assignments submitted more than 48 hours but within 72 hours after the due date will incur a 40% penalty. Assignments submitted more than 72 hours after the due date will not be accepted, and a grade of zero will be recorded.

3. Extensions:

Extensions may be granted under exceptional circumstances (e.g., medical emergencies, family emergencies). To request an extension, students must contact the instructor as soon as possible and provide appropriate documentation.

4. Technical Issues:

It is the student's responsibility to ensure that assignments are submitted on time, even in the case of technical difficulties. It is recommended to submit assignments well before the deadline to avoid last-minute issues. In the case of widespread technical issues with the course's online platform, the instructor will provide alternative submission instructions.

5. Feedback and Grading:

Assignments will be graded, and feedback provided within two weeks of the submission deadline. Late assignments will be graded as time permits and may not receive the same level of detailed feedback as on-time submissions.

6. Communication:

Students are encouraged to communicate with the instructor regarding any difficulties that may impact their ability to submit assignments on time. Proactive communication is key to managing unforeseen challenges.

Policy regarding cheating and plagiarism

Academic honesty is essential to the existence and integrity of an academic institution. The responsibility for maintaining that integrity is shared by all members of the academic community. The [University's Student Code of Conduct](#) addresses academic dishonesty. Students who commit acts of academic dishonesty are subject to disciplinary action and are granted due process and the right to appeal any decision.

Artificial Intelligence (AI)/text generators or ChatGPT usage policy:**1. Usage Guidelines:**

The use of ChatGPT or any other AI text generation tool is not encouraged in this course. Assignments, quizzes, exams, and other coursework are intended to reflect your own understanding and original work.

2. Citing ChatGPT:

If you do use ChatGPT to assist with your work, you must cite it appropriately. A citation should include the name of the tool, the date of use, and the nature of the assistance provided. For Example:

"CHATGPT, OPENAI. (DATE OF USE). ASSISTED IN GENERATING CONTENT RELATED TO PLANT PATHOLOGY CONCEPTS."

3. Checking for AI Usage:

All submitted work will be checked for AI-generated content. The instructor reserves the right to use tools and techniques to detect AI usage.

4. Consequences of Misuse:

Unacknowledged use of ChatGPT or similar tools will be considered a breach of academic integrity and will result in disciplinary action. This may include a grade penalty, failure of the assignment, or more severe academic consequences.

5. Encouragement of Independent Work:

Students are encouraged to develop their own analytical and writing skills. Relying on AI tools can impede your learning process and mastery of course material, which is essential for success in plant pathology.

The policy in this class is:

- At the first detection of cheating on a quiz or exam, you will receive a failing grade in that quiz or exam.
- At the first detection of plagiarism in an assignment, you will be given a warning; if plagiarism is detected in a subsequent assignment, the individual will receive a failing grade for the assignment.
- Should you wish to appeal a failing grade issued on the basis of dishonestly, you may contact the Head of the Department of Plant Pathology at 402-472-2858.

Accommodating Student Disabilities

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience barriers based on your special needs (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can discuss options privately. To establish reasonable accommodations, I may request that you register with Services for Students with Disabilities (SSD). If you are eligible for services and register with their office, make arrangements with me as soon as possible to discuss your accommodations so they can be implemented in a timely manner. SSD contact information: 117 Louise Pound Hall.; 402-472-3787

Diversity, equity, and inclusion

In an effort to accommodate students from all backgrounds and make this course enjoyable for everyone, we want to emphasize the values of diversity, equity, and inclusion. To foster a sense of belonging, we are happy to implement ways to respect and value each person's background, experience, ability, ideology, culture, and identity. Please, reach out if you don't feel welcomed or if anything in the course makes you feel uncomfortable.

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. I would like to create a learning environment for my students that supports thoughts, perspectives, and experiences, and honors your identities (including gender, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, culture, etc.). To help accomplish this:

If you have a name and/or set of pronouns that differ from those that appear in your official University of Nebraska records, please let me know!

If you feel like your performance in the class is being impacted by your experiences outside of class, please do not hesitate to come and talk with me. I want to be a resource for you. Remember that you can also submit anonymous feedback (which will lead to me making a general announcement to the class, if necessary, to address your concerns). If you prefer to speak with someone outside of the course, there are many resources available on-campus (e.g., CAPS).

I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that made you feel uncomfortable, please talk to me about it. (Again, anonymous feedback is always an option).

If you can think of anything that will improve your (or someone else's) experience, please let me know as soon as you can.

Classroom Emergency Preparedness and Response

- If the **Fire Alarm** is activated, exit the building by the nearest safe exit.
- If it is a **weather emergency**, follow the instructions for your building.
- For other emergency situations, e.g. **active shooter**:
 - If **immediate evacuation** seems to be the best option, exit the building using the closest exits away from the source of the emergency. Hold hands in the air when exiting the building.
 - If **immediate evacuation does not appear to be safe** or feasible:
 - Lock or block all doors.
 - Turn off the lights.
 - Stay low and away from doors.
 - Silence cell phones and stay quiet.
 - Hide in locations where appropriate.
 - When the emergency is over, exit slowly and hold hands in the air.

Instructional Continuity:

If in-person classes are canceled, you will be notified of the instructional continuity plan for this class via Canvas and/or individual emails or other messaging.