Syllabus

PLNT 3570: Fundamentals of Plant Pathology (Fall 2025)



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COURSE DETAILS

Course Title & Number: Fundamentals of Plant Pathology

Number of Credit Hours: 03

Class Times & Days of Week: Lectures: Tuesday & Thursday, 10:00 am - 11:15 am

Lab: Thursday: 2-30-5:15 pm

Location for Lectures: Architecture II 110 classes/labs/tutorials: Lab: 342 Agriculture Building

Pre-Requisites: BIOL 1030 (D)

Instructor Contact Information

Instructor(s) Name &

Preferred Form of Address:

Dr. Mohammad Sayari

Office Location: 331 Plant Science

Office Hours or Availability: Tuesday afternoon

Phone No. 431-556-1356

Email: Mohammad.sayari@umanitoba.ca

Lab Teaching Assistant Mrs. Narthaki Pathirana (Narthaki.Pathirana@umanitoba.ca)

Will return a phone call or email-within 48 hrs.

Contact: Students may contact instructors in person. If unable, use Email.

Course Description

U of M Course Calendar Description

This course is an introduction to the science of plant pathology. Topics include causal agents of plant diseases, symptoms and diagnoses, modes of infection and spread, effects of the environment on disease development, and methods of disease control. This course is a pre-requisite form for more advanced courses in plant pathology.

General Course Description

The students will be introduced to economically important diseases in the prairies they may encounter on crop plants and horticultural trees, the causal organisms, reproductive structures, and how the

environment and the host could contribute to the success of a pathogen and its infection process. This fits extremely well with the curriculum as the course will go through the areas of learning through basic and molecular approaches giving the students the needed background for their Plant Biotechnology degree.

Course Goals

This course will provide students with fundamental knowledge in plant pathology, including:

- Learning about causal agents of plant diseases,
- Learning about plant disease symptoms of economically important plant diseases,
- Learning how pathogens infect plants and spread,
- Learning the effects of the environment on disease expression,
- Learning methods of plant disease control

Course Learning Objectives

The main objective of the course is to help the students understand:

- the principles of host-pathogen interactions and how diseases occur in plants;
- the defense mechanisms plants have against plant pathogens
- how host-pathogen interaction knowledge can be used to reduce and manage diseases.

Textbook, Readings, and Course Materials

No textbook is required for this course. Suggested readings include:

- 1. Plant Pathology: concepts and laboratory exercises. R.N. Trigiano, M.T. Windham and A.S. Windham, CRC Press 2003
- 2. Plant Pathology, 5th Edition. G. Agrios. Academic Press, San Diego, CA. 2005.
- 3. Methods for evaluating plant fungicides, nematicides and bactericides. The American Phytopathological Society (1978)
- 4. Seed Treatment by K.A. Jeffs, British Crop Protection Council, 1986
- 5. Soilborne plant pathogens by G.W. Bruehl 1986, MacMillan Publishing Company (New York)
- 6. Laboratory guide for identification of plant pathogenic bacteria. N.W. Shaad. APS Press, St. Paul, MN, 1980.

Using Copyrighted Material

Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the Copyright Act applies or written permission has been confirmed. For more information, see the University's Copyright Office website at http://umanitoba.ca/copyright/ or contact umanitoba.ca/copyright/ or contact http://umanitoba.ca/copyright/ or contact umanitoba.ca/copyright/ or contact http://umanitoba.ca/copyright/ or contact http://umanitoba.ca/c

Course Technology

All technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Disability Services.

Student should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline "gaming" during scheduled class time.

If student is on call (emergency) the student should switch his/her cell phone on vibrate mode and leave the classroom before using it.

Expectations: I Expect You To

The instructors will treat you with respect and would appreciate the same courtesy in return. See Respectful Work and Learning Environment Policy.

The policies and services students are expected to follow/utilize are included at the end of this section.

You are expected to follow these policies around Class Communication, Academic Integrity, and Recording Class Lectures.

Class Communication:

You are required to obtain and use your University of Manitoba email account for all communication between yourself and the university. All communication must comply with the <u>Electronic</u> Communication with Student Policy.

Academic Integrity:

Each student in this course is expected to abide by the University of Manitoba <u>Academic Integrity principles</u>. Always remember to reference the work of others that you have used. Also be advised that you are required to complete your assignments independently unless otherwise specified. If you are encouraged to work in a team, ensure that your project complies with the academic integrity regulations. You must do your own work during exams. Inappropriate collaborative behavior and violation of other Academic Integrity principles, will lead to the serious <u>disciplinary action</u>. Visit the <u>Academic Calendar</u>, <u>Student Advocacy</u>, and <u>Academic Integrity</u> web pages for more information and support.

Refer to specific course requirements for academic integrity for individual and group work such as:

- I. Group projects are subject to the rules of academic dishonesty;
- II. Group members must ensure that a group project adheres to the principles of academic integrity;
- III. Students should also be made aware of any specific instructions concerning study groups and individual assignments;
- IV. The limits of collaboration on assignments should be defined as explicitly as possible; and
- V. All work should be completed independently unless otherwise specified.

Recording Class Lectures:

Dr. Mohammad Sayari holds copyright over the course materials, presentations and lectures which form part of this course. No audio or video recording of lectures or presentations is allowed in any format, openly or surreptitiously, in whole or in part without permission from Dr. Fouad Daayf. Course materials (both paper and digital) are for the participant's private study and research only.

Student Accessibility Services:

The University of Manitoba is committed to providing an accessible academic community. <u>Students Accessibility Services (SAS)</u> offers academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

Student Accessibility Services 520 University Centre Phone: (204) 474-7423

Email: Student accessibility@umanitoba.ca

Expectations: You Can Expect Me To

The instructor will give lectures on fundamental aspects of plant pathology and provide examples that are relevant to Manitoba and Canada. Laboratory sessions will be given by a Teaching Assistant and will help students gain some hands-on experience. Both the instructor and TA will be pleased to answer questions from students either in or after class. The instructor also welcomes students to drop by during office hours if they have questions or send an email. The instructor will provide information and answer questions in class prior to each examination.

CLASS SCHEDULE AND COURSE EVALUATION

Date for voluntary withdrawal: March 19, 2025

Date	Class contents and	Required	Evaluation		
	Teaching Strategies	Readings or any Pre-class Preparation	Type of Assessment	Due Date	Value of Final Grade
Sep 04					
Sep 09					
Sep 11					
Sep 16					
Sep 18					
Sep 23					
Sep 25					
Sep 30					
Oct 02			Presentations	Oct 01	10%
Oct 07			Presentations	Oct 06	
Oct 09			Presentations	Oct 08	
Oct 14					
Oct 16			Mid term		30%
Oct 21					
Oct 23					
Oct 28					
Oct 30					
Nov 04					

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Oct 05, Nov 06 and Nov 27

Dec 04

TBA

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Lab Final Exam

Final Exam

Total

Nov 06			
_			
Nov 18			
Nov 20			
Nov 25			
Nov 27			
Dec 02			
Dec 04			
	Evaluation		
Type of Assessme	nt Due Date	Value of Final Grade	
Mid-Term	Oct 16	30%	
Presentations	Oct 02-09	10%	
Lab reports	Sep 25, Oct	10%	
	09, Oct 23,		
	05, 000 25,		

Grading

10%

40%

100%

Letter Grade	Percentage out of 100	Grade Point Range	Final Grade Point
A+	85-100	4.25-4.5	4.5
A	80-84	3.75-4.24	4.0
B+	75-79	3.25-3.74	3.5
В	70-74	2.75-3.24	3.0
C+	65-69	2.25-2.74	2.5
С	60-64	2.0-2.24	2.0
D	50-59	Less than 2.0	1.0
F	Less than 50		0

Lab Schedule

Date	Lab Content &	Required		Evaluation	
	Teaching Strategies	Readings or Pre- Class Preparations	Type of Assessment	Due Date	Value of Final Grade
Sep 11					

Sep 18				
Sep 25		Lab Report	Sep 25	2.5%
Oct 02				
Oct 09		Lab Report	Oct 09	2.5%
Oct 16				
Oct 23		Lab Report	Oct 23	2.5%
Oct 30				
Nov 06		Lab Report	Nov 06	2.5%
Nov 20				
Nov 27		Lab Report	Nov 27	2.5%
Dec 04		Lab Final		10%
		Exam		

Voluntary Withdrawal

Refer to the <u>Registrar's Office</u> web page and University Calendar for more information. I would be willing to discuss student's progress and strategies for improvement prior the withdrawal date.

ASSIGNMENT DESCRIPTIONS

Lab reports' instructions and grading rules will be provided during lab sessions.

Assignment Feedback

Grades will be communicated to students through UMLearn, or by email, and where necessary, with feedback and/or comments. Comments and grades).

Assignment Extension and Late Submission Policy

Late Assignments

Assignments that are submitted after the stated deadline will be deducted 5% a day of the grade up to the end of the first week and 25% thereafter for each week the assignment is late.

Missed Assignments

Missed assignments will be given a nil mark unless a valid justification is presented. Assignments, reports, or exams which are illegible or poorly written may be subject to refusal or deduction of the final grade.

UNIVERSITY SUPPORT OFFICES & POLICIES

Instructors shall provide to every student the information on university support offices and policies in <u>Schedule "A"</u> within the first week of classes, either through a paper copy and/or via the university's student information system (i.e., Aurora, UM Learn, or such other university information system as may be approved by the university from time to time).

Schedule "A"

Section (a)

Writing and Learning Support

The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor's feedback.

These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: http://umanitoba.ca/student/academiclearning/

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 205 Tier Building.

University of Manitoba Libraries (UML)

As the primary contact for all research needs, your liaison librarian can play a vital role when completing academic papers and assignments. Liaisons can answer questions about managing citations, or locating appropriate resources, and will address any other concerns you may have, regarding the research process. Liaisons can be contacted by email or phone, and are also available to meet with you in-person. A complete list of liaison librarians can be found by subject: https://libguides.lib.umanitoba.ca/ or name: https://libguides.lib.umanitoba.ca/ or name: https://umanitoba.ca/libraries/librarians-and-archivists. In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries' homepage: www.umanitoba.ca/libraries.

Section (b)

For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.

Student Counselling Centre

Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. *Student Counselling Centre*: https://umanitoba.ca/student-supports/student-health-and-wellness/student-counselling-centre-scc

474 University Centre or S207 Medical Services (204) 474-8592

Student Support Case Management

Contact the Student Support Case Management team if you are concerned about yourself or another student and don't know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team.

Student Support Intake Assistant https://umanitoba.ca/student-supports/student-affairs/vice-provost-student-support

520 University Centre (204) 474-7423

University Health Service

Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation.

University Health Service https://umanitoba.ca/student-supports/health-wellness/university-health-service

104 University Centre, Fort Garry Campus (204) 474-8411 (Business hours or after hours/urgent calls)

Health and Wellness

Contact our Health and Wellness Educator if you are interested in peer support from *Healthy U* or information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault.

Health and Wellness Educator https://umanitoba.ca/student-supports/student-wellness

britt.harvey@umanitoba.ca

Live Well @ UofM

For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site:

https://news.umanitoba.ca/tag/live-well/

Section (c)

All students are required to respect copyright as per Canada's *Copyright Act*. Staff and students play a key role in the University's copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community. Visit http://umanitoba.ca/copyright for more information.

Section (d)

Your rights and responsibilities

As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The <u>Academic Calendar http://umanitoba.ca/student/records/academiccalendar.html</u> is one important source of information. View the sections *University Policies and Procedures* and *General Academic Regulations*.

While all of the information contained in these two sections is important, the following information is highlighted.

- If you have questions about your grades, talk to your instructor. There is a process for term work and final **grade appeals**. Note that you have the right to access your final examination scripts. See the Registrar's Office website for more information including appeal deadline dates and the appeal form http://umanitoba.ca/registrar/
- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the Academic Integrity regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support http://umanitoba.ca/academicintegrity/ View the Student Academic Misconduct procedure for more information.
- The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected conduct yourself in an appropriate respectful manner. Policies governing behavior include the:

Respectful Work and Learning Environment

https://umanitoba.ca/about-um/respectful-work-and-learning-environment-policy

Student Discipline

http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html and,

Violent or Threatening Behaviour

https://catalog.umanitoba.ca/undergraduate-studies/policies-procedures/violent-threatening-behaviour/

If you experience **Sexual Assault** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at:

https://umanitoba.ca/sites/default/files/2021-01/sexual_violence_policy - 2020 09 29.pdf

More information and resources can be found by reviewing the Sexual Assault site

https://umanitoba.ca/sexual-violence

 For information about rights and responsibilities regarding Intellectual Property view the policy https://umanitoba.ca/governance/sites/governance/files/2021-06/Intellectual
Property Policy - 2013_10_01 RF.pdf

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site http://umanitoba.ca/faculties/

Contact an **Academic Advisor** within our faculty/college or school for questions about your academic program and regulations http://umanitoba.ca/academic-advisors/

Student Advocacy

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.

http://umanitoba.ca/student/advocacy/ 520 University Centre 204 474 7423 student_advocacy@umanitoba.ca