



Jordan University of Science and Technology
Faculty of Agriculture
Plant Production Department

PP343 Plant Pathology

First Semester 2021-2022

Course Catalog

3 Credit Hours. Introduction to the study of plant diseases including relation of plant disease to crop production, environment, and man. Examples and demonstrations highlight diseases of horticultural and agronomic crops of economic importance in Jordan and the middle east.

Text Book

Title	Essential Plant Pathology
Author(s)	Schumann G.L. and DArcy C. J.
Edition	2nd Edition
Short Name	Required textbook
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Reference book	PLANT PATHOLOGY	Agrios, G.N.	5th Edition	

Instructor

Name	Dr. Firas Abu El Samen
Office Location	C4L2
Office Hours	Mon : 08:00 - 10:00 Mon : 13:15 - 16:00 Tue : 09:30 - 10:30 Wed : 08:00 - 10:00 Wed : 13:00 - 16:00 Thu : 14:30 - 16:30
Email	hiasat@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Mon : 10:00 - 11:00 Room: NG57 Section 2: Lecture Time: Wed : 10:00 - 11:00 Room: NG57

Prerequisites		
Line Number	Course Name	Prerequisite Type
963413	BT341 Molecular Genetics	Prerequisite / Pass

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Objectives, expectations and goals for the semester. Why study plant pathology?	Chapter 1 From Required textbook
Week 2	What is wrong with my plant? ? How do we diagnose plant diseases? ? What is the plant disease triangle? ? How do we know what organism causes a disease? What are biotrophs and necrotrophs? What is a disease cycle and how can we use it?	Chapter 1 From Required textbook
Week 3	What are the causes of plant diseases? Fungi -What is a fungus? What symptoms and signs do fungi cause? How do fungi survive and spread? How are fungal diseases managed?	Chapter 2 and 8 From Required textbook
Week 4	Diseases caused by fungi-like organisms: Oomycetes	Chapter 8 From Required textbook, Chapter 11 From Reference book
Week 5	Diseases caused by fungi-like organisms: Myxomycetes and Plasmodiophoromycetes	Chapter 11 From Reference book
Week 6	Diseases caused by True fungi: Chytridiomycetes and Zygomycetes	Chapter 11 From Reference book

Weeks 7, 8	Diseases caused by True fungi: Ascomycetes	Chapter 8 From Required textbook, Chapter 11 From Reference book
Weeks 9, 10, 11	Plant Diseases caused by Basidiomycetes: Rusts, Smuts and root rot diseases	Chapter 8 From Required textbook, chapter 11 From Reference book
Week 12	Plant Diseases caused by bacteria	Chapter 3 From Required textbook
Week 13	Plant Diseases caused by Viruses	Chapter 5 From Required textbook
Week 14	Plant Diseases caused by phytopathogenic nematodes	chapter 4 From Required textbook
Week 15	Plant diseases caused by Parasitic plants	Chapter 6 From Required textbook
Week 16	How can we prevent or manage plant disease epidemics?	Chapter 11 From Required textbook

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Introduce students to the basic principles and concepts of plant pathology. [100PLO2]	20%	
Familiarize students with the basic vocabulary of plant pathology and plant disease management [100PLO4]	10%	
Introduce and illustrate the major groups of organisms that cause plant diseases. [100PLO1]	30%	

Enhance student's understanding of scientific research, especially as it applies to the science of plant pathology and the study of microorganisms [100PLO5]	10%	
Provide students with practical skills of diagnosing plant diseases in the field and laboratory. [100PLO2]	20%	
Provide a framework that students can use in their profession to best approach plant disease management. [10PLO2, 90PLO3]	10%	

Relationship to Program Student Outcomes (Out of 100%)						
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7
30	41	9	10	10		

Evaluation	
Assessment Tool	Weight
Mid term exam	50%
Final exam	50%

Policy	
Class attendance	Class attendance is mandatory. Students will be assigned to a seat number and empty seats will be recorded by the end of each class. Missing a lab period will be counted as 1.5 and students who miss more than 10% of the class time will be subjected to dismissal from the class. According to the University regulations, you are allowed to miss 4-5 classes regardless of the reason, Please use this privilege wisely and do not contact me if you plan to miss a lecture or lab session.
Assignments	Each student is responsible for bringing diseased plant samples to the laboratory session each week. There are specific standards for collection and handling of diseased plant samples that will be explained during the lab period. For fungal diseases students are required to isolate and identify the causal agents using simple isolation techniques and microscopic observation of the microorganism associated with diseased samples. Sharing disease samples are not allowed and a split or replicate sample will not guarantee you the grade you deserve. The laboratory instructor and the TA will keep an open eye on your activities and will report back to me. Lab reports might be required for some activities in the lab.
Examinations	Mid-term and final examinations must be given at the time specified by admission and registration unit in the university. This applies for all examinations, whether an on-campus or an online exam. No changes in examination dates. No make-up examinations except with official medical reports approved by the dean of the faculty of agriculture. The instructor can verify the identity of the students in the exam room by requesting student university ID. If a student is unavoidably absent from any examination, university regulations will be applied. Graded exams will be given back to students and the questions will be answered and discussed with the students in class or online.
Cheating, Plagiarism and Academic Dishonesty	Any student who attempts to cheat will be asked to hand over the exam immediately and will be reported to the department head. The case will be handled in accordance with the university's regulations, which include disciplinary penalties as well as the possibility of failure in the course and/or dismissal from the University. Students are expected to complete their assignments themselves. Any kind of plagiarism is prohibited. The university's regulations also apply if there is academic dishonesty and plagiarism of assignment during the course.

Class participation	Participating in classroom discussion, online discussions, or any type of collaborating in various forms such as forming study groups, helping your classmate with studying are highly encouraged. A student who actively participates in class discussion may receive up to 2% bonus added to the final grade.
Electronic devices	Electronic devices of any kind (smartphones, tablets, or laptops) must be turned off (without vibration or even silent mode), they should not be seen in the student's hands, and they should not be tampered with during class. As an exception, these devices may only be triggered when indicated and used only for illustrative purposes during the teaching process. If you fail to comply with this policy, you will be dismissed on that day and you will be recorded as absent for this class.
Course withdrawal	Students can only formally withdraw from classes by submitting the online withdrawal form available on the student services portal or at the registration unit according to the university regulations.

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