

Pathology course description Vegetables and protected agriculture

: Course Name	.1
Vegetable diseases and protected agriculture	
: Course Code	.2
VEPA420	
Semester / Year : Annual	.3
2024-2025/First semter_four stage	
Date this description was prepared	.4
2025/2/1	
: Available forms of attendance	.5
In electronic -In Class	
:Number of study hours (total)/number of units (total)	.6
unit 3.5 /hours75	
Name of the course administrator (if more than one name is mentioned)	.7
Dr.Raghad Naif Mheedi .M,M. Rayan Salem Mahmoud.	
Course objectives	.8
<p>The learner should be able to define the concept of disease and the information that must be available to know the medical history</p> <p>Choosing the appropriateness of the factors affecting the disease and determining its ability to spread</p> <p>Differentiate between types of pathogens and know all their classifications</p> <p>Understanding the basics of modern planning to develop a program that explains the forms and patterns of plant diseases</p> <p>Distinguishing between classes and sections of fungi according to the type of each class</p> <p>Identify plant diseases, symptoms and signs, and what must be taken into account when distinguishing between them</p> <p>A comprehensive study of the various types of control, how to diagnose each disease, and determine the controls .and conditions that must be observed when carrying out all instructions to carry out the control in the proper manner</p>	
Teaching and learning strategies	.9
<p style="text-align: right;">Interactive lecture -</p> <p style="text-align: right;">Brainstorming -</p> <p style="text-align: right;">Dialogue and discussion -</p> <p style="text-align: right;">Field Training -</p> <p style="text-align: right;">Practical exercises -</p> <p style="text-align: right;">Field project -</p> <p style="text-align: right;">Self- education -</p>	

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Semester exam 1, final exam	Interactive lecture, brainstorming, dialogue and discussion, self-learning	An overview of the concept of plant disease and its history	Identify diseases that spread in agricultural fields :a1	1 theoretical	1
Short practical test1	Interactive lecture, brainstorming, dialogue and discussion, field training, self-learning		Learn about the installation of a greenhouse and ,a1 the mechanism of cultivation inside it	3 practical	
Semester exam 1, final exam	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The number and type of greenhouses and glass houses operating simultaneously, and the types and varieties of plants grown in the greenhouses	Production economics in protected agriculture compared to open agriculture :a2	1 theoretical	2
discussion	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		Field trips to find out the factors that help spread a2 diseases inside greenhouses	3 practical	
Semester exam 1, final exam	Interactive lecture, brainstorming, dialogue and discussion, self-learning	Key factors for the success and development of protected agriculture	Studying the obstacles to protected agriculture :a3 in Iraq and finding ways to develop it and factors for its success	1 theoretical	3
Laboratory evaluation	Interactive lecture, brainstorming, dialogue and discussion, field training, self-learning		Explains the most common pathogens that lead a3 to economic losses	3 practical	
Semester test 1, final test , report	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The importance of organisms causing plant diseases	Identify the organisms that cause plant diseases a4: and understand the meaning of pathogenicity	1 theoretical	4
Practical short test 2 direct , drawing	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		He is familiar with the most important agricultural a4 methods used inside greenhouses to prevent disease infections	3 practical	
Semester test 1, final test , report	Interactive lecture, brainstorming, dialogue and discussion, self-learning	Disease symptoms and signs	Explains the difference between pathological a5: symptoms and pathological signs	1 theoretical	5
Field evaluation	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		The most common symptoms on plants grown in b1 greenhouses are described	3 practical	

Short test, final test	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The relationship of diseases to environmental health	Explains the concept of plant pathology and its :b1 relationship to environmental health	1 theoretical	6
discussion and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		Explaining the most important means that help b2 spread diseases that affect plants in greenhouses	3 practical	
Semester exam 2, final exam	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The spread of diseases in greenhouses	Familiarize yourself with the most important :b2 factors affecting the epidemiology of diseases and their relationship to the spread of diseases in .greenhouses	1 theoretical	7
Field project	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, field project, self-learning		Proficient in the process of taking samples from b3 plant parts to the laboratory	3 practical	
Semester exam 2, final exam	Interactive lecture, brainstorming, dialogue and discussion, self-learning	Types of pathogens and their relationship to plant health	Master the importance of pathogens and their :b3 relationship to plant health and environmental health	1 theoretical	8
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		Proficient in the process of taking soil samples for b4 the laboratory	3 practical	
Semester exam 2, final exam	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The spread of diseases in greenhouses	Understand the importance of the spread of :b4 pathogens in agricultural fields and greenhouses	1 theoretical	9
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		Familiar with the process of isolating pathogens in a1 the laboratory	3 practical	
Semester test2	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The latest technologies in diagnosing diseases and pathogens	Masters the importance of diagnosing plant :b5 diseases by all modern means	1 theoretical	10
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning	Practical steps	Learn about the mechanism of laboratory b2 diagnosis of pathogens	3 practical	
Final test	Interactive lecture, brainstorming, dialogue	The importance of insect vectors in	Explains the great importance of studying insect :c1 vectors of pathogens and their relationship to	1 theoretical	11

	and discussion, self-learning	greenhouses	.greenhouses	tical	
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		Learn about the mechanism of laboratory c1 diagnosis of pathogens	3 practical	
Final test	Interactive lecture, brainstorming, dialogue and discussion, self-learning	Control the carrier and how to transport and infect	Suggests an appropriate method to control the :c2 vector of diseases and how to transmit and infect them	1 theoretical	12
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning	Practical steps for	Purifying pathogens and preparing laboratory b4 slides for examination	3 practical	
Final test	Interactive lecture, brainstorming, dialogue and discussion, self-learning	Ideal control in disease management	Explains an ideal control program and suggests :c3 an optimal method for disease management and control	1 theoretical	13
discussion and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning	Practical steps	Laboratory evaluation of the effectiveness of c3 some pesticides	3 practical	
Short test, final test	Interactive lecture, brainstorming, dialogue and discussion, self-learning	The importance of the spread of pathogens in greenhouses	Leads discussion panels on the critical :d1 importance of the spread of plant diseases and how to control them	1 theoretical	14
Short practical test3	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, and self-learning		Spraying chemical pesticides is applied in practice c2 inside chemical houses	3 practical	
Short test, final test	Interactive lecture, brainstorming, dialogue and discussion, self-learning	Identifying health risks and their impact on human health	Identifying health risks and their impact on :e1 human health Negligence in public health	1 theoretical	15
Field project	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, field project, self-learning		Learn about the most important biological controlb4 agents, their abundance and use	3 practical	
Course evaluation .11					
Relative weight %	Class	Calendar date (week)	Calendar methods	T	

2.5	2.5	fourth week	Report 1	1
2.5	2.5	The fifth week	Report 2	2
2	2	sixth week	Quiz Short test (1)	3
2	2	The fourteenth week	Quiz Short test (2)	4
1	1	The fifteenth week	Quiz Short test (3)	5
7.5	7.5	the sixth week	Semester test (1)	6
7.5	7.5	The eleventh week is difficult	Semester test (2)	7
40	40	Final semester exams	Final theoretical test	8
5	5	The fifteenth week	Practical field project	9
2	2	The third and fifth week	Field evaluation	10
1	1	The first week	Quiz Short practical test (1)	11
0.5	0.5	fourth week	Quiz Short practical test (2)	12
1	1	The fourteenth week	Quiz Short practical test (3)	13
5.5	5.5	Weeks 6, 8, 9, 10, 11, 12 and 13	Live drawings and homework	14
20	20	Final semester exams	Final practical test	15
%100	%100	100	the total	

Learning and teaching resources .12

cases of orchards and vegetables, written by Dr. Samir Mikhail and Daabd Al-Hamid Tarabiya Dr. Abdel -Jawad Al-Zarri	Required textbooks (methodology, if any)
Diseases of orchards and vegetables/University of Aleppo Plant diseases - Dr. Muhammad Amer Fayyad And thank you Mohamed Hamza - Albasrah university Plant diseases - Written by George Agrios and translated by Dr. Mahmoud Musa Abu Arqoub	Main references (sources)
Google research	Recommended supporting books and references (scientific journals, (...reports
Google scholar Google chrome Google research Researchgate Journal of plant pathology	Electronic references, Internet sites

Practical subject teacher
M.MRayan Salem .

Theoretical subject teacher
Dr. Raghad naif mheedi



[Signature]
د. م. م. ريان سالم
مدرس قسم وقاية النباتات



[Signature]
د. رغدة نايف مهيدي
مدرس قسم وقاية النباتات