Course description of crop diseases

1. Course Name :	crop diseases
2. Course Code :	CRDI363
3. Year / Semester : Annual	2024–First semester/third stage/2023
4. Date this description was prepared	2024/2/1
5. Available forms of attendance :	In Class
6. Total Number of units (total)/number of study hours):	unit 3.5 / hours75
7. Name of the course administrator (if more than one name is mentioned)	Dr. Raghad Nayef Mahidi M. M. Saleh Ahmed Issa

8. Course objectives

- The learner should be able to define the concept of disease and the information that must be available to know the medical history
- Choosing the appropriateness of the factors affecting the disease and determining its ability to spread
- Differentiate between types of pathogens and know all their classifications
- Understanding the basics of modern planning to develop a program that explains the forms and patterns of plant diseases
- Distinguishing between classes and sections of fungi according to the type of each class
- Familiarity with the information the teacher needs and what is available to him to master his work
- Identify plant diseases, symptoms and signs, and what must be taken into account when distinguishing between them
- 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.

9. Teaching and learning strategies

- Interactive lecture
- Brainstorming
- Dialogue and discussion
- Training Field
- Practical exercises
- Field project

education -Self -

Course structure .10

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 plant concept of disease	a1 Identify diseases that spread in agricultural fields	1 theoretical	1
Short practical test1	Interactive lecture, brainstorming, dialogue and discussion, field learning -training, self	Laboratory and equipment	Gets acquainted with the laboratory and all :c3 laboratory equipment	3 practical	
Semester exam 1, final exam	Interactive lecture, brainstorming, dialogue -and discussion, self learning	The importance of field crops	:a2 Recognizes the economic importance of field crops and their relationship to diseases	1 theoretical	2
Direct drawing	lecture, Interactive brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Laboratory working conditions	Familiar with all laboratory safety conditions :c6 when conducting laboratory experiments	3 practical	
Semester exam 1, final exam	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Knowledge of diseases and their history	Get to know a brief history of each disease :a3 spreading in agricultural fields	1 theoretical	3
Field evaluation	Interactive lecture, brainstorming, dialogue and discussion, field learning -training, self	Isolation and diagnosis of pathogens	Isolate the pathogens to be diagnosed :a2	3 practical	
Semester test 1, final , test report	Interactive lecture, brainstorming, dialogue -and discussion, self learning	The presence of ,pathogens pathogenicity and Koch's hypotheses	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	Optical microscopes in laboratories	Examine pathogens using optical microscopes :a1	3 practical	
Semester test 1, final , test report	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Symptoms and signs of disease in plant families	:a5 Explains the difference between pathological symptoms and pathological signs	1 theoretical	5
Field evaluation	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self	Pathological causes their relationship and to girls	explains the most common pathogens that lead b6 to losses	3 practical	

	learning				
Short test, final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Environmental Health	Explains the concept of plant pathology and its b1 environmental health relationship to	1 theore tical	6
Direct drawing and homework	Interactive lecture, dialogue ,brainstorming and discussion, field training, practical -exercises, and self learning	Agricultural food media	prepares different food mediaa7	3 practic al	
Semester exam 2, final exam	lecture, Interactive brainstorming, dialogue -and discussion, self learning	Epidemiology of diseases	:b2 Familiarizes with the most important factors affecting the epidemiology of diseases	1 theore tical	7
Field project	Interactive lecture, brainstorming, dialogue discussion, field and training, practical exercises, field project, learning-self	Laboratory diagnosis of diseases	Identify the mechanism of laboratory diagnosis :a2 of pathogens	3 practic al	
Semester exam 2, final exam	lecture, Interactive brainstorming, dialogue -and discussion, self learning	The importance of pathogens	Master the importance of pathogens and their :b3 relationship to plant health and environmental health	1 theore tical	8
Direct drawing and homework	Interactive lecture, brainstorming, dialogue field ,and discussion training, practical -exercises, and self learning	Symptoms, signs, and life cycles	describes the most common symptoms of plant c2 diseases	3 practic al	
Semester exam 2, final exam	Interactive lecture, dialogue ,brainstorming -and discussion, self learning	Spread of pathogens in the environment	Understands the importance of the spread of b4 pathogens in agricultural fields	1 theore tical	9
Direct drawing and homework	Interactive lecture, brainstorming, dialogue field ,and discussion training, practical -exercises, and self learning	Taking samples from plant parts and soil	Proficient in the process of taking samples from c5 plant parts and soil	3 practic al	
Semester test2	Interactive lecture, brainstorming, dialogue -discussion, self and learning	Modern diagnostic methods	Masters the importance of diagnosing plant b5 diseases by all modern means	1 theore tical	10
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -self exercises, and learning	Preparing laboratory slides	Purification of pathogens and preparation of c1 laboratory slides	3 practic al	
Final test	Interactive lecture,	The importance of	demonstrates the great importance of studying c1	1	11

	brainstorming, dialogue -and discussion, self learning	insect vectors	insect vectors of pathogens	theore tical	
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Field visits	conducts a field visitd7	3 practic al	
Final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	How to transmit disease and injury	control the suggests an appropriate method toc2 carrier of diseases and how to transmit and infect them	1 theore tical	12
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Sterilization methods	Evaluating the effectiveness of some :e4 sterilization methods	3 practic al	
Final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Integrated control	suggests Explains an ideal control program and :c3 an optimal method for disease management and control	1 theore tical	13
Direct drawing and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Methods of protecting field crops	He is familiar with the most important :b1 protect agricultural agricultural methods used to crops from infection	3 practic al	
,Short test final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Discussion panel	panel discussions on the critical He leads :d1 importance of the spread of plant diseases and how to control them	1 theore tical	14
Short practical test3	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Artificial infection of laboratory plants	pathogenicity by artificially Learn how to provea2 infecting tested plants	3 practic al	
,Short test final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Disease risks to human health	Identify health risks, their impact on human e1 health, and the impact of negligence on public health	1 theore tical	15
Field project	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, field project, learning-self	Diagnosing pathological symptoms and signs	difference between pathological explains theb1 symptoms and pathological signs	3 practic al	

evaluation Course .11

Relative	Class	(Calendar date (week	Calendar methods	T

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

12. Learning and teaching resources

Required textbooks (methodology, if any	Ani Demisermjidjergis-Dr. Raqeeb Akef Al - Field crop diseases
(Main references (sources	- Hamid -Dasmir Mikhail Daabd al -orchards and vegetables Diseases of University of Mosul -Zarari -Jawad al-Tarabiyah Dr. Abd al - -Dr. Muhammad Amer Fayyad and Muhammad Hamza -Plant diseases University of Basra - by Damahmoud Musa written by George Akrios and translated -Plant Diseases Abba Arqoub - University of Basra -written by Abdulaziz Majeed Nakhilan -Practical plant diseases
Recommended supporting books and references (scientific journals, (....reports	
Electronic references, Internet sites	Google scholar Google chrome Google research Researchgate Journal of plant pathology

Practical subject teacher

Saleh Ahmed Issa

Theoretical subject teacher

Dr.iRaghad Naif Mheedi

Head of Department plant protection

Dr .Firas Kadhim

Chairman of the Scientific Committee

.Prof. Dr.Juhaina Idris