principles of plant protection Description of the course on

	principles	of plant protection D	escription of the course on		
			: Course	Name	.1
			Principles of pla	nt prote	ction
			; Course	Code	. *
				100000000000000000000000000000000000000	PP117
			Annual ; Year / Ser		ŗ
				024 /secen	dstage
			Date this description was pro	epared	.1
			2025/2	/ii	
			: Available forms of atter	ndance	.0
				My pres	sence
		:(Number of	study hours (total)/number of units	s (total	.7
			units T.º practical hours / Ttheoreti	cal hour	rs/Y
	(Name of the	course administrator	(if more than one name is ment	tioned	, Y
b		d determining its ability to spread	Course objet that must be available to know the medical histor of Choosing the appropriateness of the factors affi	y should ecting the	٠.٨
	them distinguishing betwee	odem planning to develop a prog tween the ranks and so Learn about entomol on when Identify plant diseases,	tween types of pathogens and know all their class from that explains the forms and patterns of plant actions of fungi according to the type of each Disti- ogy and the factors that helped insects survive ar symptoms and signs, and what must be taken into	diseases nguish be nd spread a account	
s A comprehen	sive study of the various t	ypes of control, how to diagnose hat must be observed when carr	e each disease, and determine the controls and ying out all instructions to carry out the control in	the proper	marrier
			learning strategies Teachi	ng and	.5
			Intera	active lectu	ure -
	Mary -			trainstormi	1.00
	بعدة الموصل الم	de de	and discuss	ion Dialog ield Traini	1000
	لزراعة والعابات	12,35		cal exercis	
	(672)			Field proje	
			ed	lucation -S	elf _
	Carry Carry	SEE .	Course st	ructure	٠١.
Evaluatio	Learning method	Name of the unit	Required learning outcomes	hours	the

or topic

lecture. An overview of the

n method

Semester Interactive

week

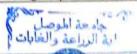
1

Concept of plant disease :A1

1	brainstorming, dialogue	plant concept of	Plant disease	theore	
kam	-and discussion, self learning	disease, its definition knowledge of and , the disease and the plant host	The pathogen -1 The breadwinner -2 Environmental factors -3	tical	
Short practical 1test	Interactive lecture, brainstorming, dialogue and discussion, field learning-training, self	pathology Plant laboratory	Identify laboratory equipment :C6 The student learned how to use a microscope, :a41 how to examine pathogens, and prepare slides	3 practic al	
Semester ,1exam final exam	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Factors of the pathological triangle	Recognizes the disease pyramid, the disease a2 triangle, and the factors affecting it history and medical	1 theore tical	
Live discussion	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Conducting the sterilization process inside the laboratory sterilization -	The student learns about sterilization methods: C6 and how to eliminate pathogens inside the laboratory	3 practic al	2
Semester ,1exam final exam	Interactive lecture, brainstorming, dialogue -discussion, self and learning	Development and detection of plant disease	Learn a brief overview of the disease history of :a3 and the each disease spreading in agricultural fields stages of development and detection of the plant .disease	1 theore tical	3
Laboratory evaluation	Interactive lecture, brainstorming, dialogue and discussion, field learning-training, self	Food environments	Identifying food media and how to prepare :a6 them	3 practic al	
Semester final ,1test , test report	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Pathogens of plant hosts	diseases Identify the organisms that cause plant :a4 and understand the meaning of pathogenicity	1 theore tical	
Practical 2short test direct , drawing	Interactive lecture, dialogue ,brainstorming and discussion, field training, practical -exercises, and self learning	Identify several symptoms of pathogenic causes, diagnose them within the disease, and differentiate between pathogenic causes	The student learns about different plant :a10 diseases and how to diagnose them	3 practic al	4
Semester final ,1test , test report	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Disease symptoms and signs	It explains the difference between pathological: A1 and studies the symptoms and pathological signs anatomical symptoms and apparent and pathological signs	1 theore tical	5
Laboratory evaluation	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Isolation of causing organisms plant diseases	Laboratory isolation of pathogens from :a10 plant parts different	3 practic al	7777



	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Basics of integrated management	attack plants Shows how pathogens :b1 mechanically and chemically and discusses the .concept of the basics of integrated management	1 theore tical	
ssessmen	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -self exercises, and learning	Scientific visit	scientific visit to the fields Conduct a :d9 Horticulture stations, identifying the most important plant diseases and diagnosing them in the field	3 practic al	6
Semester Zexam final exam	Interactive lecture, dialogue ,brainstorming -and discussion, self learning	Synthetic and chemical defences	the importance and how plants. Understands: b2 defend themselves through synthetic defenses and biological chemical defenses.	1 theore tical	
writing a report	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, field project, learning-self	A scientific visit to the plastic one of houses	and inside Conduct a scientific visit to the fields :d9 and identify the most important the greenhouses plant diseases and diagnose them in the field	3 practic al	7
Semester ,2exam final exam	Interactive lecture, brainstorming, dialogue -and discussion, self learning	world of insects	factors that Learn about insect science and the :a3 helped insects survive and spread	1 theore tical	
Discussion and homework	Interactive lecture, brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Insect body wall	Learn the basics about insects and their body -a1 walls	3 practic al	8
Semester ,2exam final exam	Interactive lecture, brainstorming, dialogue -and discussion, self learning		the harms and benefits of insects Learn about :a4 and their economic importance	1 theore tical	
Discussion and homework	brainstorming, dialogue	body	recognizes insect body regions a2	3 practic al	9
Semester 2test	Interactive lecture,	Learn about modern methods of resistance	Master the methods of pest control b1:	1 theore tical	
Discussion and homework	Interactive lecture, brainstorming, dialogue	Study concepts	is familiar with the concept of evolution and b1 impossibility	3 practic al	10
Final tes		Learn about modern	as ath arts	1 theore	11





	-and discussion, self learning	resistance		tical	
ssion and mework	Interactive lecture, brainstorming, dialogue	Identify insects	identifies some insectsb2	3 practic al	
Final test		Learn about modern methods of resistance	the methods of pest control Master :b3	1 theore tical	
nd my homework	,Interactive lecture brainstorming, dialogue and discussion, field training, practical -exercises, and self learning	Examines the mouth parts of the insect	Examines the types of mouthparts of b3 important insects and the appendages of the head region	3 practic al	12
Final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Insects that infect crops	Identify crop insects :b4	1 theore tical	
Discussion and homework	Interactive lecture, brainstorming, dialogue	1	examines the chest and its appendages b4	3 practic al	13
Short test final test	Interactive lecture, brainstorming, dialogue -and discussion, self learning	Orchard insects	garden insects Identify :B5	1 theore tical	
Short practical 3test	Interactive lecture, brainstorming , dialogue	Examines the insect's body parts	Examines the abdomen and its appendages C1	3 practic al	14
Short test final test	Interactive lecture,	General insects	Identify general insects :b6	1 theore tical	
Field project	Interactive lecture,	General insects	discusses general insects b5	3 practic al	15

حامعة موصل راعة والغابات المراعة والغابات عاد: دراعية

% weight

1				
		fourth week	2.5	2.5
	YReport	The fifth week	2.5	2.5
3	Quiz (1)Short test	sixth week	2	2
4	Quiz (*)Short test	The fourteenth week	2	2
5	Quiz (*)Short test	fifteenth week The	1	1
6	(¹)Semester test	the sixth week	7.5	7.5
7	(Y)Semester test	The eleventh week is difficult	7.5	7.5
1 2 3 4 5 6 7 8 9	Final theoretical test	Final semester exams	40	40
9	Practical field project	The fifteenth week	5	5
10	Field evaluation	and fifth week The third	2	2
11	Quiz (')Short practical test	The first week	1	1
12	Quiz (Y)Short practical test	fourth week	0.5	0.5
13	Quiz (*)Short practical test	The fourteenth week	1	1
14	Live drawings and homework	rand 17,11,19, .A. TWeeks	5.5	5.5
15	Final practical test	Final semester exams	20	20
	the total	100	%100	%100
- OUTOOS	/ Main references //	insects Orchard General insects leases of orchards and vegetables	Doomir Mikhail Daahd al -Di	ald Torobiyob
ources	(Main references (s	Mosul - Zarari-Jawad al-Dr. Abd al Muhammad Hamza - Plant diseases of Basra by George Akrios - Plant Diseases Abba Arqoub Nakhilan - Practical plant diseases Basra	University of A Iuhammad Amer Fayyad and I by Damahmoud Musa written	ersity - Dr. N
and	Recommended supporting books (references (scientific journals	Journal of plant pathology		
ectronic				
	references, Internet sites E	Google scholar Google chrome Google research Researchgate Journal of plant pathology		

Practical subject teacher IKHLAS Mohammad Noor salah

nead of department

dr. Nofal isas muhamid

العادة والالات الدراعية ال

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Dr. alla hameed Mohamed

Head of the Aof the Scientific Committe Chairman