Course Description Form
1. Course Name:
Principles of Horticultural Science
2. Course Code:
PRHS116
3. Semester / Year:
Second semester/first stage/2023-2024
4. Description Preparation Date:
1/2/2024
5. Available Attendance Forms:
My presence
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical 2 + 3 practical/3.5 units
7. Course administrator's name (mention all, if more than one name)
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8. Course Objectives

- The learner should be able to understand and comprehend what is related to the subject of principles of horticulture and its relationship to other sciences
- Their selection of important agricultural processes in horticultural plants
- Differentiating between different planning systems and the appropriate ones
- Understand the basics and concepts of horticulture
- Distinguish between processes that are suitable for fruit, vegetable and ornamental crops
- Familiarity with the information the farmer needs and what is available to him to understand the science of horticulture and its divisions
- Agricultural awareness of the factors affecting yield
- Determine methods of producing seeds in horticultural crops and methods of caring for them in terms of storage and marketing
- A comprehensive study on how to establish vegetable farms or fruit orchards and establish nurseries for horticultural plants
- 9. Teaching and Learning Strategies

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

 10. Course Structure

10	(ourse.	Stru	cture

	Course Structure						
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evalua tion metho d		
	• 2 Theoretical	A1: Learn about the concept of horticulture, its divisions, definition and classification A2: Describe horticulture A1: Mention the branches of horticulture A2: Give examples of the branches of horticulture A3: Table of horticulture C1: Enumerates the branches of horticultural crops according to their classification C1: Enumerates the branches of horticulture C1: Horticultural Crops Department	An overview of the concept of horticulture. The branches of horticulture and the division of horticultural crops	auditory methods, Writing style on the blackboard Dialogue style Direct slides Power Point	Short exams, assign ments, discuss ions		
	• 3 practical	A1: Define the science of horticulture A5 Distinguish the most important branches of horticulture	Horticultural foundations	Practical assignment With tasks And report	Short exams Assign ment of duty discuss ions		
2	2 Theoretical	A1: Known as	Reasons for	auditory methods, Writing style	Short		
		vegetable crops	the	the blackboard Dialogue style Direct slides	exams		
		A4: It has the ability	development	Power Point	Assign		
		to compare summer	of vegetable		ment		
		and winter vegetable	cultivation in		of duty		
		crops	Iraq and		discuss		

	T				
		C1: It has the ability	examples of		ions
		to divide vegetable	vegetables		
		crops according to the	Dividing		
		growth period	vegetable		
			crops		
	3 practical	A1 Mention the	Horticultural	practical Assignment to And report	Short
		general	facility		exams
		characteristics that			Assign
		must be present in the			ment
		growing medium A2 Explain			of duty
		components of a w			discuss
					ions
3	• 2 Theoretical			auditory	
		A1: Mentions the	Reasons for	methods, Writing style	Short
		reasons for the	the	the blackboard Dialogue style Direct slides	
		development of	development	Power Point	Assign
		vegetable cultivation	of vegetable		ment
		in Iraq. Then give	cultivation in		of duty
		examples of	Iraq. The		discuss
		vegetable crops	nutritional		ions
		according to the	value and		
		period of growth and	botanical		
		the nature of growth	division of		
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	most important	crops.		
	reasons for the			
	development of			
	vegetable cultivation			
	in Iraq			
	B3: Shows the			
	importance of			
	vegetable crops in			
	terms of nutritional			
	value			
	C2: Write a report on			
	the nutritional			
	importance of			
	vegetable crops			
	C1: Vegetable crops			
	are divided according			
	to the botanical			
	division based on the			
	structural and			
	anatomical			
	specifications of the			
	plants.			
3 practical	A1 Define		practical	
	seed reproduction and features	Seed	Assignment ta And report	Short

	T	I			
			reproduction		exams
					Assign
					ment
					of duty
					discuss
					ions
4	2 Theoretical	C1: Divide vegetable	Dividing	auditory methods, Writing style	Short
		crops according to the	vegetable	the blackboard Dialogue style Direct slides	
		edible part	crops	Power Point	Assign
		C1: Divide vegetable			ment
		crops according to the			of duty
		part that is eaten			
		C1: Plants are divided			
		according to their			
		thermal needs, as			
		each vegetable crop			
		has a specific range			
		of temperatures that			
		suit its growth.			
		B2: Explains the			
		effect of			
		environmental			

		conditions on vegetable production			
		in Iraq			
	3 practical	A1 Define vegeta reproduction and features).	Vegetative	practical Assignment to And report	Short
			propagation		exams
					Assign
					ment
					of duty
					discuss
					ions
5	2 Theoretical			auditory	
		B3: Shows the impact	Problems of	methods, Writing style	Short
		of technical factors	growing	the blackboard Dialogue style Direct slides	exams,
		on the production of	vegetables in	Power Point	assign
		vegetable crops in	Iraq		ments,
		Iraq			discuss
		B2: Explains the			ions
		effect of weather			
		conditions on			
		vegetable crops in			
		Iraq			
	3 practical	A1 Define the	Fertilization	practical Assignment to And report	Short
		following terms			exams
		(Fertilizer, Manor)			Assign

		A4 Difference Between inorganic fertilizers and organic fertilizers			ment of duty discuss ions
					IOHS
6	2 Theoretical	C1: List the weather factors that affect	Factors affecting the	auditory methods, Writing style the blackboard Dialogue style	Short exams,
		vegetable crops	growth of	Direct slides Power Point	assign
		D1: Explain the effect	vegetable		ments,
		of weather factors on	crops		discuss
		crops			ions
		B3: Shows the effect			
		of weather factors			
		that affect vegetable			
		crops			
		B2: Explains how			
		growth regulators			
		affect vegetable crops			
		B2: The effect of			
		temperature shows			
		the growth of			
		vegetable crops			
		B2: Explains the			
		effect of lighting on			

			1		
	2 mastical	the growth of vegetable crops B2: Explains the effect of CO2 on plants	Lucipation	prostical	
	• 3 practical	A1: Number of irrigal methods	Irrigation.	practical Assignment to And report	Short exams Assign ment of duty discuss ions
7	• 2 Theoretical	: Known as sexual reproduction B3: Shows how the farmer is satisfied with the limited income in Iraq A1: Seed lobe B3: Shows the characteristics of good seeds with a drawing	Reproduction of vegetable crops (sexual)	auditory methods, Writing style the blackboard Dialogue style Direct slides Power Point	Short exams, assignme discussio

C1: Enumerates the methods of planting seeds A1: Known as seedlings B3: Explains the importance of transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization Pruning practical Assignment and Assignment and the proport and practical and report in the success of the transplantation.	T		1	1	
A1: Known as seedings B3: Explains the importance of transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning practical Assignment to student		C1: Enumerates the			
A1: Known as seedlings B3: Explains the importance of transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization Pruning practical Discussing A1: Define the Pruning practical Assignment to student student student.		methods of planting			
seedlings B3: Explains the importance of transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization Pruning practical Discussing student to the principles of th		seeds			
B3: Explains the importance of transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization A1: Define the Pruning practical Assignment to student stud		A1: Known as			
importance of transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization A1: Discussin A1: Discussin A1: Discussin A1: Discussin A1: Discussin A3: Discussin A3: Discussin A5: Define the		seedlings			
transplantation and the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization Pruning Practical Discussin Student A1: Define the		B3: Explains the			
the factors that affect the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization A1: Define the Pruning practical Assignment to student		importance of			
the success of the transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning Practical Assignment is student		transplantation and			
transplantation process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization Pruning practical Assignment to student		the factors that affect			
process C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization Pruning practical Assignment ta student		the success of the			
C1: Vegetable crops are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning Practical Assignment ta student		transplantation			
are divided according to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning practical Assignment ta student		process			
to their tolerance to transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning practical Assignment ts student		C1: Vegetable crops			
transplantation, with examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning practical Assignment ta student		are divided according			
examples A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning practical Assignment to student		to their tolerance to			
A1: Knows localization C1: Enumerates the methods of localization • 3 practical A1: Define the Pruning practical Assignment to student		transplantation, with			
localization C1: Enumerates the methods of localization • 3 practical A1: Define the Assignment ta student		examples			
C1: Enumerates the methods of localization • 3 practical A1: Define the A1: Define the		A1: Knows			
methods of localization • 3 practical A1: Define the A1: Define the		localization			
localization • 3 practical A1: Define the Pruning practical Discussin Assignment ta student		C1: Enumerates the			
• 3 practical Pruning practical Discussing A1: Define the Pruning practical Discussing Assignment to Student		methods of			
A1: Define the Assignment to student		localization			
	3 practical	A1: Define the	Pruning	Assignment ta	student

		pruning process and the purposes of pruning A1: Mention the types of pruning and explain the pruning in terms of the amount			
		of wood removed A1: Mention the difference			
		education methods			
8	2 Theoretical	A1: Known as	Asexual reproduction of vegetable crops	Writing style	Short
		vegetative		the blackboard Dialogue style Direct slides	exams,
		propagation		Power Point	assign
		B2: Explains the			ments,
		methods of			discuss
		multiplication in			ions
		detail			
		C1: List the methods			
		of asexual			
		reproduction			
	3 practical	Discussing student repo	Semester test1)	practical Assignment to And report	Short
					exams
					Assign
					ment
					of duty

					discuss
					ionس
9	2 Theoretical	C1: Section of the	Flowering and fruit setting in	auditory methods, Writing style	Short
		flowering system in	vegetable rops	the blackboard Dialogue style Direct slides	exams,
		vegetable crops in		Power Point	assign
		detail		practical Assignment to And report	ments,
		B3: Explain the types		And report	discuss
		of pollination in			ions
		vegetable crops in			
		detail			
	• 3 practical	A1 State the conditions establishing orchids	fruit garden	practical Assignment ta And report	Short
					exams
					Assign
					ment
					of duty
					discuss
					ions
10	Theoretical	The basics of classificat of fruit trees B3: Shows the importan	Second: Fruit	practical Assignment to And report	Short
		of the nutritional value of	trees		exams
		fruit A4: Discusses the situation of fruits in			Assign
		Iraq B3: Shows the influence factors on the success o			ment
		fruit cultivation A4: Discusses			of duty
		the harmful and beneficial effects of			discuss

		low temperatures			
		B2: Explains the effect of air humidit			ions
		and			
		rain B3: Shows the effect of			
		wind			
		on fruit trees			
		B3: Shows the effect of			
		light on fruit trees			
		B3: Shows the effect of			
		ground water level on f			
		trees D5: Explain the			
		relationship between			
		irrigation and			
		the cultivation of fruit			
		trees A4: Explains			
		the effect of irrigation			
		water and its relationsh			
		to			
	3 practical	the success of fruit trees A1 Define the agricultu		practical	
	5 practical	cycle	Agriculturar cy	Assignment ta	Short
				And report	Short
		A1Mention the qualities			exams
		good alternation			· · · · · · · · · · · · · · · · · · ·
		A1 Mention the steps for			Assign
		designing the course			
		required per unit area.			ment
		A scientific			
		visit to one of			of duty
		the			4.
		centers Seed			discuss
		Inspection			ions
		And			10118
11	Theoretical	certification.	Methods	practical	
	Theoretical	A1: Sexual	reproduction fruit	Assignment to And report	
		reproduction is	plants		
		known in fruit trees			
		B3: Explains the			
		advantages and			
		disadvantages of this			

method CI: Divides the seeds according to embryos AI: Vegetative reproduction is known. Mention its features AI: Lists the methods of vegetative propagation in detail : AI defines stillness CI: Enumerates ways to break silence AI defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting, then the most	1		ı	1	
according to embryos A1: Vegetative reproduction is known. Mention its features A1: Lists the methods of vegetative propagation in detail : A1 defines stillness C1: Enumerates ways to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		method			
Al: Vegetative reproduction is known. Mention its features Al: Lists the methods of vegetative propagation in detail : Al defines stillness Cl: Enumerates ways to break silence Al defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		C1: Divides the seeds			
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known. Mention its features Al: Lists the methods of vegetative propagation in detail : Al defines stillness Cl: Enumerates ways to break silence Al defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting.		A1: Vegetative			
features AI: Lists the methods of vegetative propagation in detail : AI defines stillness CI: Enumerates ways to break silence AI defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		reproduction is			
A1: Lists the methods of vegetative propagation in detail : A1 defines stillness C1: Enumerates ways to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		known. Mention its			
of vegetative propagation in detail : A1 defines stillness C1: Enumerates ways to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		features			
propagation in detail : A1 defines stillness C1: Enumerates ways to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		A1: Lists the methods			
: A1 defines stillness C1: Enumerates ways to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		of vegetative			
C1: Enumerates ways to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		propagation in detail			
to break silence A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		: A1 defines stillness			
A1 defines vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		C1: Enumerates ways			
vaccination A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		to break silence			
A4: It distinguishes between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		A1 defines			
between grafted seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		vaccination			
seedlings and non- grafted seedlings B3: Explains the conditions for successful grafting,		A4: It distinguishes			
grafted seedlings B3: Explains the conditions for successful grafting,		between grafted			
B3: Explains the conditions for successful grafting,		seedlings and non-			
conditions for successful grafting,		grafted seedlings			
successful grafting,		B3: Explains the			
		conditions for			
then the most		successful grafting,			
		then the most			

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	important operations			
	that are performed			
	after grafting, then			
	explains the			
	principles used in			
	propagating some			
	fruit trees.			
	D5: Distinguish			
	between grafting and			
	mounting			
	A1: Knows the			
	composition			
	B3: Shows the types			
	of installation			
	A1: Known as			
	pruning			
	B3: Shows the			
	benefits of pruning			
	C1: The pruning is			
	divided into several			
	sections, mention			
	them			
3 practical	A1 State the conditions choosing the nursery site	Nurseries	practical Assignment tasks	Short
			And report	

		1			1
					exams
					Assign
					ment
					of duty discuss
					ions
12	Theoretical	A1: He knows the nurse B3: It indicates certain conditions for the		practical Assignment to And report	Short
		successful establishmen a nursery in any area the must be met			exams
		A1: He mentions the conditions necessary to protect and produce			Assign
		seedlings in the nursery including these conditions			ment of duty
		B3: Shows the types of nurseries B6: He plans to establi nursery			discuss
					ions
	3 practical	B1 The number of gene characteristics that mus			Short
		available in the growing medium	developing plan	And report	exams
		A1 Mention the types anvils used multiplication.			Assign
					ment
					of duty
					discuss
					IOHS
13	Theoretical	C1: Divide ornamental		practical	
		plants, then enumerate to methods of propagating ornamental plants		Assignment to And report	Short
		r	Ornamental		exams

		1			
			Plants		Assign
					ment
					of duty
					discuss
					ions
	2 1	D1D	C 1		
	• 3 practical	B1Practicing field w and planting some p seeds		practical Assignment to And report	Short
					exams
					Assign
					ment
					of duty
					discuss
					ion
14	Theoretical	A1: Understand what is meant by the agriculturacycle	Agricultural	practical Assignment to And report	exams
		, then mention the bene- of the agricultural cycle			Assign
		B3: List the important points that must be taken			ment
		into consideration when designing			of duty
		the agricultural cycle A1: Understand			discuss
		what is meant intercropping,			ion
		then mention its bendand disadvantages			
	3 practical	intercropping A2 Describe the sect		Discussing	
	- 3 practical	of ornamental bulbs	Bulbs	student report	Short
					exams

						i
					Assign	l
					ment	l
					of	l
					dutydis	l
					cussion	l
					S	l
15	Theoretical	A PowerPoint presenta on plants and a	A Power Point presentati on plants and a scientific visit t	horticulture	Short	
		scientific visit to horticulture station and	the horticulture station			
		private nurseries	private nurseri		Assign ment	
	3 practical	A field visit to the Nine Horticulture Station and the private nurseries.	A Power Point presenta on lants and scientific visit t the horticul station and	horticulture station and		
			private nurserie			
				<u> </u>		<u> </u>
11. Course E	Evaluation e grade out of 100 according to the tasks			tion daily	-mal mor	11-1- writton ave
	e grade out of 100 according to the tasks and Teaching Resources	s assigned to the student,	Such as daily pro	paration, dairy,	, Orai, mon	inly, written each
Required textbooks (methodology, if any)			Gardening pri	teaching resour inciples book, P	Part 1 and P	
Main references (sources)			Scientific refe	erences speciali		t trees, vegetable
Recommended books and references (scientific journals, reports)				f horticulture		n Saleh Abdul r. Faisal Rashid
Electronic Referen	aces, Websites					Horticultural Sc

مدرس المادة العملي م.م . زهور فؤاد عبد الجبار

۾ <mark>۾ سحر علي خلو</mark>

مدرس المادة النظري:



م.د. نهى وليد قادر الزبيدي

رئيس قسم المكتن والألاث الزراعية أع توقل عيسى محيميد

> جامعة المرصا كثية الزراعة والحابات

رتيس اللهنة الطبية أردر أركان معمدأمين صنيق