

Course Description Vegetables production

1. Course Name: Vegetables production					
2. Course Code: VEPR121					
3. Semester / Year: 2023-2024					
4. Description Preparation Date: 2024 /2/1					
5. Available Attendance Forms: in person					
6. Number of Credit Hours 2 theoretical + 3 practical (5) / Number of Units (3.5)					
7. Course administrator's name (mention all, if more than one name)					
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8. Course Objectives					
Enabling the student to understand and comprehend what is related to the science of vegetable production and its relationship to other sciences Enabling the student to know the most important scientific methods in identifying vegetable production Enabling the student to become familiar with the concept of vegetable production Enabling the student to be able to identify all types of summer vegetables and all the phenomena related to the production of summer vegetables • The student can explain all aspects of life related to the science of producing summer vegetables					
9. Teaching and Learning Strategies					
<ul style="list-style-type: none"> - Interactive lecture - Brainstorming - Dialogue and discussion - Field Training - Practical exercises - Field project - Self-education 					
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical	A1: Learn about the science of	Definition and original habitats	Interactive lecture, brainstorming,	Short exams, assignments,

		horticulture and mention the main branches of this science. B3: Explain the most important things that must be available in order to develop the cultivation and production of vegetable crops. A1: Mention the problems of vegetable production in Iraq	of vegetable plants	dialogue and discussion, self-learning,	discussions
	3 Practical	Among the most important factors that are taken into consideration when establishing a vegetable field	Vegetable crops website	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
2	2 Theoretical	<u>A1: Defines greenhouses and mentions the advantages and disadvantages.</u> <u>B2: Explains the shape of the house, the design of the house, and the orientation of the house. A1: Defines greenhouses and mentions the advantages and disadvantages.</u> <u>B2: Explains the shape of the house, the design of the house, and the orientation of the house: B2: Explains the shape of the wooden canopy and the cold and hot fireplaces.</u>	Facilities needed for growing vegetables	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student distinguishes between the types of greenhouses	Identify greenhouses	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions

3	2 Theoretical	B3: Shows the economic importance of vegetable crops B3: Shows the importance of vegetable crops in terms of nutritional value C1: Divides vegetable crops according to botanical division based on the structural and anatomical specifications of the plants	Classification of vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	Differentiates between vegetable crops according to their external appearance	Types of vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
4	2 Theoretical	A1: Defines vegetative propagation, mention its features. C1: Enumerates the methods of vegetative propagation. A1: Defines sexual propagation, mention the characteristics of good seeds. B3: Explains methods of planting seeds. A1: Defines seedlings and acclimatization. B3: Explains the changes that occur in seedlings after acclimatization. C1: Enumerates acclimatization methods.	Multiplication of vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	Distinguish between methods of reproduction and examination of plant flowers	Multiplication of waist crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
5	2 Theoretical	A1: Knows grafting A1: Knows mulching	Agricultural operations in vegetable crops	Interactive lecture, brainstorming, dialogue and	Short exams, assignments, discussions

		A1: Knows hoeing B3: Explains the harms of not performing hoeing and its benefits for the plant: A1 Knows mulching A1: Mentions the benefits of mulching A1: Mentions the benefits of exporting		discussion, self-learning,	
	3 Practical	Applies methods of logging, cutting, hoeing, exporting, and mulching	Agriculture operations	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
6	2 Theoretical	A1: Defines fertilizers B3: Explains the importance of fertilizers for plants C1: Enumerates the types of fertilizers A1: Mentions the benefits of animal fertilizers B3: Explains the method of preparing animal fertilizers A1: Mentions the benefits of green fertilizers B2: Explains the method of using green fertilizers C1: Divides chemical fertilizers B1: Explains the method C1 fertilizer analysis: Nitrogen, phosphate and potassium fertilizers are divided according to their composition	Fertilizing vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Semester test 1
	3 Practical	Applies how to add plant fertilizers	Methods of fertilizing vegetables	Interactive lecture, brainstorming, dialogue and discussion, self-	semester test 1, final test

				learning,	
7	2 Theoretical	A1: Mentions the most important factors that affect the absorption process by the leaves. B3: Shows how factors affect the absorption by the leaves. B3: Shows methods for diagnosing the fertilizer needs of vegetable crops.	Methods of adding fertilizers	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	Explain the importance of fertilizers, methods of adding them, and their importance	Fertilizing vegetables	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
8	2 Theoretical	B3: Explains the frequency of irrigation and the period of irrigation on the plant: A1: Mentions the advantages and disadvantages of irrigation methods B3: Explains propagation methods in detail C1: Enumerates irrigation methods	Irrigation of vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student experiments with all types of irrigation methods	Watering vegetables	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
9	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Shows methods of reproduction, pollination, maturation, and storage	Cucurbitaceae family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student distinguishes between the	Cucurbitaceae family	Interactive lecture, brainstorming, dialogue and	Short exams, assignments, discussions

		types of plants of the cucurbit family, their cultivation methods, and service and irrigation processes		discussion, self-learning,	
10	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Shows methods of reproduction, pollination, maturation, and storage	Watermelon	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student distinguishes between the types of plants of the cucurbit family, their cultivation methods, and service and irrigation processes	Cucurbitaceae family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
11	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination, maturation, and storage	Narcissistic family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student distinguishes between the types of plants of the narcissi family, their cultivation methods, and service and irrigation processes	Narcissistic family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
12	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination,	Solanaceae family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 2, final test

		maturation, and storage			
	3 Practical	The student distinguishes between the types of plants of the nightshade family, their cultivation methods, and service and irrigation processes	Solanaceae family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 2, final test
13	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination, maturation, and storage	The legume family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student distinguishes between the types of plants of the leguminous family, their cultivation methods, and service and irrigation processes	The legume family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
14	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination, maturation, and storage	Crusader family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
	3 Practical	The student distinguishes between the types of plants of the cruciferous family, their cultivation methods, and service and irrigation processes	Crusader family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Short exams, assignments, discussions
15	2 Theoretical	A PowerPoint	A PowerPoint	Interactive lecture,	Scientific visit

		presentation on plants and a scientific visit to the horticulture station and private nurseries	presentation on plants and a scientific visit to the horticulture station and private nurseries	brainstorming, dialogue and discussion, self-learning,	
	3 Practical	Solve the problem	Types of vegetable plants	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	Scientific visit

11. Course Evaluation

seq	Evaluation methods	Evaluation date (week)	Grade	Relative weight %
1	Report 1	fourth week	2.5	2.5
2	Report 2	fifth week	2.5	2.5
3	Short test (1)	sixth week	2	2
4	Quiz Short test (2)	fourteenth week	2	2
5	Quiz Short test (3)	fifteenth week	1	1
6	Semester test (1)	sixth week	7.5	7.5
7	Semester test (2)	eleventh week	7.5	7.5
8	Final theoretical test	Final semester exams	40	40
9	Practical field project	fifteenth week	5	5
10	Field evaluation	third and fifth week	2	2
11	Short test (1)	first week	1	1
12	Quiz Short test (2)	fourth week	0.5	0.5
13	Quiz Short test (3)	fourteenth week	2.5	2.5
14	Live drawings and homework	Weeks 6, 8, 9, 10, 11, 12 and 13	2.5	2.5
15	Final practical test	Final semester exams	2	2
	Total	100	100%	100%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Green production 2. Fruitful vegetable crops. Production of tuber and bulbous vegetables. Secondary vegetable crops
Main references (sources)	Hassan, A. A. M.(2001) Al-Qur'iyat: Arab Publishing and Distribution House - first edition - Cairo - Arab Republic of Egypt. Matloub, A. Nr.(1988) Production of vegetables 2: Dar Al-Kutub for Printing and Publishing - University - Mosul - Republic of Iraq. Hassan, A.A.M.(2003) Potatoes: Arab Publishing and Distribution House - first edition - Cairo - Arab Republic of Egypt. Hassan, A. A.M. (2017) Basics of Vegetable Production: Arab Publishing and Distribution House - First Edition - Cairo - Arab

	Republic of Egypt.
Recommended books and references (scientific journals, reports...)	Vegetables production Plant physiology
Electronic References, Websites	Ketabpedia.com

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