

Course Description Vegetables production

1. Course Name: Vegetables production 2
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.
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
- 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 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	Definition and original habitats of vegetable plants	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
	3 Practical	A1 Mention the factors that must be taken into consideration when establishing vegetable field	Vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
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.</u> <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.</u> <u>B2:</u>	Facilities needed for growing vegetables	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

		<u>Explains the shape of the wooden canopy and the cold and hot fireplaces.</u>			
	3 Practical	A1 KNOW reproduction Seed and vegetative	practical Plant Cell Multiplication of vegetable crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
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		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
	3 Practical	B1 Number of methods for placing seeds in the soil	Methods of planting vegetable seeds	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
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		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

		acclimatization methods.			
	3 Practical	B3 Between crop sections Vegetables according to their ability to bear transplanting	Green nursery	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
5	2 Theoretical	A1: Knows grafting A1: Knows mulching 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		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
	3 Practical	B1 Number of Regionalisaioni methods	Regionalisation	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
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:		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

		Nitrogen, phosphate and potassium fertilizers are divided according to their composition			
	3 Practical	B1 Number of resistance methods Weeds	Agricultural operations in Vegetable	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
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.		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
	3 Practical	B6 Design a triple crop rotation	Agricultural cycle	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
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		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

	3 Practical	B3 between nature Growth and total Root and stem And the leaves and flowers Pollination and varieties B4 Scientific experiments Field for cultivation Lahana and cauliflower And radishes And the shalgam	Crusader family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
9	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Shows methods of reproduction, pollination, maturation, and storage		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
	3 Practical	B3 between nature Growth and total Root and stem And the leaves and flowers Pollination and varieties B4 Scientific experiments Field for growing beans Peas	The legume family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
10	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Shows methods of reproduction, pollination, maturation, and storage		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

	3 Practical	B3 between nature Growth and total Root and stem And the leaves and flowers Pollination and varieties B4 Scientific experiments Field for growing beets and spinach	The saprophytic family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
11	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination, maturation, and storage		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
	3 Practical	B3 between nature Growth and total Root and stem And the leaves and flowers Pollination and varieties B4 Scientific experiments Field for growing onions and garlic	Allium family	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test
12	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination, maturation, and storage		Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

	3 Practical	B3 between nature Growth and total Root and stem And the leaves and flowers Pollination and varieties B4 Scientific experiments Field for growing lettuce and carrots	Compound family, Apiaceae family	Interactive lecture, brainstorming, dialogue and discussion, self- learning,	semester test 1, 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		Interactive lecture, brainstorming, dialogue and discussion, self- learning,	semester test 1, final test
	3 Practical	nature Growth and total Root and stem And the leaves and flowers Pollination and varieties B4 Scientific experiments Field for growing tomatoes, peppers, eggplant and potatoes	Solanaceae family	Interactive lecture, brainstorming, dialogue and discussion, self- learning,	semester test 1, final test
14	2 Theoretical	B3: Shows the morphological description of crops of the cucurbit family. B3: Explains methods of reproduction, pollination, maturation, and storage		Interactive lecture, brainstorming, dialogue and discussion, self- learning,	semester test 1, final test
	3 Practical	Examination and discussion of student reports	Semester exam	Interactive lecture, brainstorming, dialogue and discussion, self- learning,	semester test 1, final test
15	2 Theoretical	A PowerPoint presentation on plants and a scientific visit to the horticulture		Interactive lecture, brainstorming, dialogue and discussion, self- learning,	semester test 1, final test

		station and private nurseries			
	3 Practical	A PowerPoint presentation on plants and a scientific visit to the horticulture station and private nurseries	Solve the problem	Interactive lecture, brainstorming, dialogue and discussion, self-learning,	semester test 1, final test

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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