بسم الله الرحمن الرحيم

Republic of Iraq

The Ministry of Higher Education

& Scientific Research

University: Diyala
College: Agriculture
Department: Animal production
Stage: second
Lecturer name: Sarah Ali Mohammed
Qualification: Lecturer
Place of work: college of Agriculture

Flow up of implementation celli pass play

Course Instructor	**Sarah Ali Mohammed Al-Hayani**				
E-mail	**saraali@uodiyala.edu.iq**				
Title	**Fundamentals of Horticulture Science**				
Course Coordinator	**Spring Course \ 2024-2025**				
Course Objective	**Introducing students to the science of horticulture and its plant divisions, including fruit plants, vegetable plants, and ornamental plants. It also includes introducing the student to the environmental factors suitable for their growth and their impact on the production of horticultural crops. It also introduces the student to the various means of propagation of plants, whether sexual or vegetative propagation. The objectives of the course also include the student's knowledge of establishing nurseries and field cultivation patterns. The required agricultural operations include irrigation, fertilization, pruning, thinning, and bush resistance, in addition .to giving examples of crop production for some families**				
Course Description	**Type here Course description**				
Textbook	**Mohammed Abbas Salman (1988) Propagation of Horticultural Plants, Jabbar Hassan Salomi and Mr. Hussam Hassan Ali Ghaleb, Horticulture (translator)**				
Course Assessments	**Term Tests**	**Laboratory**	**Quizzes**	**Project**	**Final Exam**
	20%	**15%**	**5%**		**60%**
General Notes	**Type here general notes regarding the course**				

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week	Date	Theoretical material	Practical material
1	1st Week	A historical overview of the emergence, development and propagation of plants	Types of nurseries, division of nurseries
2	2nd Week	Sexual propagation (propagation by seeds). How seeds are formed and the embryo develops, the changes that occur in the embryo during its development and maturity, seed germination, dormancy in the seed, the treatments that end the dormancy of the seed, the changes that occur in the seed and the embryo during dormancy and after the end of dormancy, the advantages and disadvantages of sexual propagation.	Plant propagation facilities, greenhouses, shade houses, cold and heated tunnels
3	3rd Week	Treatments that encourage seed germination, cold and moisture treatments (cold stratification), treatments with growth regulators, water treatment, seed growing media, environmental conditions and their effect on seed germination.	Media used in the propagation and development of horticultural plants, types of media
4	4th Week	Methods of asexual propagation of plants, advantages and disadvantages of asexual propagation, vegetative basis for asexual propagation of plants, propagation by cuttings. Environmental conditions and their relationship to the success of propagation by cuttings.	Seed propagation, seed production, seed treatments before planting
5	5 th Week	Agricultural operations (irrigation, fertilization, pruning, thinning, weed and pest control, etc.)	Seed extraction, planting seeds of some types of vegetable and fruit crops, individualization and acclimatization of seedlings
6	6 th Week	Agriculture under air-conditioned environments	exam

7	**7 th Week**	**exam**	**Propagation by cuttings, how to prepare cuttings**
8	**8 th Week**	**harvest**	**Cuttings treatments to increase rooting rate, cuttings treatments with growth regulators, how to prepare growth regulator solutions**
9	**9 th Week**	**Marketing, storage and preservation**	**Seedling, seedling individualization, planting seedlings in the permanent area**
10	**10th Week**	**About the breeding and improvement of horticultural plants**	**Uprooting fruit tree seedlings, how to uproot, uprooting dates, treating seedlings after uprooting**
11	**11th Week**	**Examples of fruit trees (deciduous, evergreen)**	**Propagation by specialized parts, propagation by tubers, propagation by suckers**
12	**12th Week**	**Examples of vegetable plants (strategic crops)**	**Propagation by crabs, how to remove and separate crabs, planting crabs in the nursery**
13	**13th Week**	**exam**	**exam**
14	**14th Week**	**Examples of ornamental plants and garden design (annual, biennial, perennial)**	**Visit some government or private nurseries, depending on availability.**
15	**15th Week**	**Examples of medicinal and aromatic plants**	**Visit to the plant tissue culture laboratory, preparation of media**

Signature
Sarah Ali Mohammed Al-Hayani
15/1/2025

Dean's signature
Pro. Dr. Raaed Ibrahim Khalil
15/1/2025