Course Description Form

1. Course Name:
Ornamental plant 2
2. Course Code:
ORPL-311
3. Semester / Year:
FaII Semester /Academic Year 2024/2025
4. Description Preparation Date:
1-2-2025
5. Available Attendance Forms:
In Presence+ Elctronic
6. Number of Credit Hours (Total) / Number of Units (Total)
1 hours Theoretical 3 hours practical /2.5 unit
7. Course administrator's name (mention all, if more than one name)
Name:.Prof.Dr. Asmaa Mohammed Adil EamiI asmaama@uomosul.edu.iq , Lecturer .Eelaf Almayahi

8. Course Objectives	
Theoretical: 1)Identify different categories of ornamental plants. 2)Understand plant description and visual differentiation of leaves, stems, roots, and flowers. 3)Develop the necessary skills to acquire and apply methods of ornamental plant propagation. 4)Familiarize with all agricultural processes related to ornamental plants and execute them effectively.	Practical:

9. Teaching and Learning Strategies	
Theoretical: · Interactive lectures · Brainstorming sessions · Dialogue and discussion · Self-directed learning	Practical: · Interactive lecture · Discussion, dialogue and brainstorming · Set reports · Conduct daily tests and · Monthly checks

	▪ Field training ▪ Field projects

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1h	A1: The student's acquaintance with lawns plants and ground cover A2: He possesses the knowledge, practical concepts, and mental abilities that aid him in understanding greenery plants on flat surfaces, as well as comprehending the components of soil and their role in preserving the environment and ecological balance. B2: He engages with community members and works on raising their awareness about the importance of increasing vegetation cover and its impact on pollution control. He contributes to enhancing aesthetic values among community members and enlightens them about the significance of parks and expanding green spaces to improve the environment and serve the community.	Lawns and ground cover	Interactive lecturing, brainstorming, and dialogue style.	Exams Reports Discussion and questions

	3h	Recognizing types of green spaces, teaching their cultivation, as well as the ability to assess the environmental and economic impacts to choose the appropriate types of coverage and plants. Developing planning and design skills for sustainable and aesthetic green spaces	Lawns and Ground Cover	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
Practical	3h	C3: Knowledge of plant classifications and their identification.			
2	1h	A2: It identifies green space systems and soil coverings,		Lectures	Exams Reports

		and understanding the environmental conditions that affect the growth of soil coverings	The importance of Ground cover and Lawns .	And audio means And reports And conduct experiments	Discussion and questions
	3h	C3: The student utilizes the necessary information and resources for planting ground cover	Identifying plants and practical training in planting ground cover	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
3	1h	A1: Studying ornamental trees and their importance in landscaping, as well as methods to mitigate environmental pollution	Trees, their importance, and cultivation.	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
	3h	C3: Understanding the importance of ornament trees in improving environmental quality, providing more oxygen, and purifying the air. Recognizing different types of ornamental tree and understanding the requirements of each typ in terms of cultivation a maintenance."	Types of trees: Definition, environmental requirements, organization, and utilization.	Interactive lecture, brainstorming, dialogue and discussion, field training, self-directed learning.	Exams Reports Discussion and questions
4	1h	A3: Understanding the importance of ornament trees in improving environmental quality, providing more oxygen, and purifying the air. Recognizing different types of ornamental tree and understanding the requirements of each typ in terms of cultivation a maintenance. Analyzing the impact of ornamenta	Coordination purposes, organization, uses, division, pruning and shaping, renewal, and maintenance	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

		trees on local climate regulation and reducing environmental pollution such as carbon dioxide absorption, noise reduction, and dust mitigation. Developing skills in planting and maintaining ornamental trees, including proper planting techniques, irrigation, and fertilizati The ability to analyze th environmental and economic effects to sele suitable trees for plantin in a specific area. .			
	3h	C1 : Implementing practical tree planting projects using ornamental trees and evaluating their results and impact on the surrounding environment. Raising awareness about the importance of environmental protection and contributing to its preservation through the planting and maintenance of ornamental trees	TREES	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
5	1h	A1: Understanding shrubs and ornamental palms, defining the concept of shrubs as part of biological and plant diversity. Recognizing different types of shrubs and understanding the characteristics of each	SHRUBS AND ORNAMENTAL PALM	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

		type, including growth, propagation, water, and fertilization requirements. Analyzing the importance of shrubs in the environment, economy, and society, including their role in soil protection, desertification mitigation, and providing food resources. Developing skills in planting and maintaining shrubs, including site selection, proper cultivation, irrigation, and fertilization. The ability to analyze environmental and developmental needs to select suitable shrubs for planting in a specific area.			
	3h	C3:Implementing practical projects for planting shrubs in designated areas and evaluating their impact on the surrounding environment. Developing awareness about the importance of conserving biodiversity and preserving shrubs as part of ecosystems. These outcomes enhance students' understanding of the importance of shrubs in the environment and society, enabling them	Shrubs	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

		to participate in their conservation and sustainable use			
6	1h	A1: . Climbing plants: Identifying climbing plants and categorizing them as a type of plants that climb other structures for support and nourishment. Recognizing different types of climbing plants and understanding their physiological and reproductive characteristics, as well as their climbing methods. Analyzing the importance of climbing plants in the environment and practical uses such as providing shade and enhancing landscape aesthetics. Developing skills in planting and maintaining climbing plants, including selecting appropriate species and cultivation techniques. The ability to analyze environmental conditions and site requirements to select suitable climbing plants for cultivation in different locations	Selection of climbing plants, their coordination purposes, and their types.	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
	3h	C2: Implementing practical projects for planting climbing plants in gardens or	CLIMBING	Lectures And audio means And reports	

		public areas and evaluating their impact on the surrounding environment. Developing awareness about the importance of using climbing plants in organizing green spaces, improving the surrounding environment, and making it more beautiful and sustainable. These outcomes contribute to empowering students to understand the role of climbing plants in the environment and effectively apply them in environmental design and enhancing environmental quality.		And conduct experiments 	
7	1h	EXAM 1	Midterm exam 1 based on the lectures provided above, with the continuation of the practical material.	Lectures And audio means And reports And conduct experiments	Exam1
	3h	A field trip with a scientific purpose.	A scientific visit to one of the public parks or gardens focusing on trees and shrubs and their various types.	discussion, field training, practical exercises, self-learning	Field project

8	1h	A1: Hedges and Fences plants: Recognizing Hedges and Fences plants and identifying them as types of plants that grow on the ground and cover its surface partially or completely.	Hedges and Fences	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
	3h	C3: Implementing practical projects for planting ground cover plants in designated areas and evaluating their impact on the soil and the surrounding environment. Developing awareness about the importance of using ground cover plants in environmental protection, contributing to biodiversity, and making the environment more sustainable. These outcomes enhance students' understanding of the importance of ground cover plants in the environment and empower them to effectively participate in environmental conservation and protection.	Selection of Hedges and Fences plants, their coordination purposes, and their types, and identification.		

9	1h	A1: Aquatic plants: Understanding the concept of aquatic plants and identifying them as types of plants that grow in water or along shores and rivers. Recognizing different types of aquatic plants such as algae, aquatic grasses, and submerged plants, and understanding their methods of reproduction and adaptation to the aquatic environment. Analyzing the importance of aquatic plants in the aquatic environment and the environmental impact they represent, including improving water quality and providing food and shelter for other living organisms. D: Developing skills in sensing and analyzing the environment of aquatic plants, including understanding the water quality criteria and their impact on plant growth. The ability to identify environmental factors that affect the growth and reproduction of aquatic plants and understand the effects of pollution and	Selection of aquatic plants, their coordination purposes, and their types.	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

		climate changes on them			
	3h	Implementing practical projects to study aquatic plants in different aquatic environments and evaluate their impact on the surrounding environment. Developing awareness about the importance of protecting the aquatic environment and conserving biodiversity through the preservation of aquatic plants and maintaining river and lake systems. These outcomes contribute to empowering students to understand the role of aquatic plants in the aquatic environment, their impact on ecological balance, and their contribution to preserving and sustaining the aquatic environment	Aquatic and Semi Aquatic plants	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
10	1h	A1: Semi-aquatic plants: Recognizing semi-aquatic plants and identifying them as types of plants that grow partially in water and partially in air. Knowing different types of semi-aquatic plants and understanding their	Types of Aquatic and Semi Aquatic plants	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

		physiological and ecological adaptation to the semi-aquatic environment. Analyzing the importance of semi-aquatic plants in the environment and the environmental impact they represent, such as their role in water purification and improving air quality. Developing skills in sensing and analyzing the environment of semi-aquatic plants, including understanding changes in water levels and marshy lands. The ability to identify environmental factors that affect the growth and development of semi-aquatic plants and understand the effects of pollution and climate changes on them.			
	3h	. Implementing practical projects to study semi-aquatic plants in their natural environments and evaluating their impact on the surrounding environment. Developing awareness about the importance of protecting semi-aquatic environments, conserving biodiversity, and the necessity of preserving water resources.	aquatic plants and semi-aquatic	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

11	1h	For spiny and succulent plants: Understanding the concept of spiny and succulent plants and identifying them as types of plants characterized by the presence of thorns or sap in their structures. Recognizing different types of spiny and succulent plants and understanding their adaptation to dry or desert environments. Analyzing the importance of spiny and succulent plants in the environment and the environmental impact they represent, such as their ability to survive in harsh environmental conditions and provide shade and shelter for other living organisms. Developing skills in sensing and analyzing the environment of spiny and succulent plants, including understanding their mechanisms of adaptation to dry and changing conditions. The ability to identify environmental factors that affect the growth and development of spiny and succulent plants and their impact on the surrounding environment.	Cactus and Succulent plants	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

	3h	Implementing practical projects to study spiny and succulent plants in their natural environments and evaluating their impact on the surrounding environment. Developing awareness about the importance of protecting spiny and succulent plants and contributing to the preservation of biodiversity and the necessity of conserving harsh environments. These outcomes contribute to empowering students to understand the role of spiny and succulent plants in the environment and contribute to their conservation and sustainability.	Types and Propagation of Cactus and Succulent plants		
12	1h	A1: Perennial herbaceous flowers such as gerberas, violets, and salvias... Studying these perennial flowers can contribute to understanding biological diversity and plant classification, identifying unique characteristics of each species. Studying these flowers can help develop skills in garden coordination	Perennial herbaceous flowers	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions

		and landscape design, using them to enhance beauty and vitality in green spaces. Students can study the impact of these flowers on their surrounding environment and how to maintain environmental balance and sustainable development. Studying these flowers can provide opportunities for scientific research and innovation in areas such as genetic improvement and development of resistant and enhanced varieties.			
13	1h		Cultivating Rosette Plants	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
	3h	C1:,. Applications in Space and Urban Agriculture: What is learned from cultivating rosette plants can be applied in space applications, such as providing food and oxygen for astronauts in space stations. These techniques can also be applied in urban agriculture to enhance food production in	Rosette plants		Reports Discussion and questions

		cities and improve air quality.			
14	1h	A1: Indoor landscaping plants - types, suitable conditions, potted plants, propagation, factors aiding the success of shade-tolerant plants in homes and offices.	Indoor landscaping plants	Lectures And audio means And reports And conduct experiments	Exams Reports Discussion and questions
	3h	C1:. Observing Plants in Plastic houses, Glasshouses, and Wooden Shades. .	Field visits	Field Visits	
15	1h 3h	Exams 2	Exams 2	experiments	Exams

11.Course Evaluation

t	Evaluation methods	Evaluation date (one week)	Grade	Relative weight %
1	Final theoretical report + theoretical practical reports	Theoretical 15 weeks Practical 1-15 weeks	7theoretical + 6 practical	%
2	Short test 1 Quiz	3 weeks	4theoretical + 2practical	%
3	Midterm exam (theoretical and practical)	9 weeks	10theoretical + 5 practical	%
4	Short test 2 Quiz	12 weeks	4 theoretical + 2 practical	%
5	Final practical test	practical exams week	20	20%
6	Final theoretical exam	theoretical exams week	40	40%
			100	100

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Al-Jalabi, Talal Mahmoud. (1990). Engineering and Design of Gardens. Mosul University Publications. Iraq.
Main references (sources)	**Al-Baali, Sadiq Abdulghani. (1967). Gardens. Local Administration Press, Baghdad, Iraq.**
Recommended books and references (scientific journals, reports...)	Al-Batal, Nabil and Adnan Al-Sheikh Awad. (2005). Ornamental Plants and Garden Landscaping. Damascus University Publications. Syria.

	Mahmoud, Mohsen Khalaf and Sami Karim Mohammed Amin. (1989). Ornamentation and Garden Engineering. Iraq. Tuwaijan, Ahmed Mohammed Musa. (1987). Ornamental Plants. Basra University Press. Tuwaijan, Ahmed Mohammed Musa. (1987). Greenhouse Environment. Basra University Press.

Lecturer Name (Theory)
t.Prof.Dr. Asmaa Mohammed Adil

Lecturer Name (Practical)
Eelaf Almayahi

Head of Department of Horticulture

Prof. Dr. Asmaa Mohammed Adil

Chairman of the scientific committee

Prof. Dr. Jassim Mohammed Alwan