

Republic of Iraq

The Ministry of Higher
Education

& Scientific Research

بسم الله الرحمن الرحيم



University: Diyala

College: Agriculture

Department: Horticulture and
landscaping

Stage: 2

Lecturer name: Zeina Sami Rashid

Scientific title: Professor assistant


Qualification: Ph. D


Place of work: University of Diyala

Flow up of implementation celli pass play

Course Instructor	Zeina Sami Rashid				
E-mail	zeinasami@uodiyala.edu.iq				
Title	Plant Physiology				
Course Coordinator	Frist Chapter /stage 2				
Course Description	Introducing students to the physiological processes and biological interactions that occur .within plants				
Textbook	.Plant Physiology (1982). Dr. Faisal Abdel Qader and others Basics of Plant Physiology (1991), Dr. Abdel-Azim Kazem and Dr. Moayed Ahmed Al-Younis Plant Physiology (1987), Dr. Abdul Hadi Al-Rayes and Dr. Abdul-Azim Kazem				
Course Assessments	The theoretical semester exam	Practical % semester exam	Daily % theoretical exams	Practical % final exams	Theoretical% final Exam
	25	10	5	20	40

Syllabus		
Week	Theoretical	Lab.
1	Introduction, definition of plant physiology, the history of its knowledge and development, and its relationship to other sciences	Plant cell study under microscope.
2	Plant - water Relations. The structure and properties of water	Experiments of measuring diffusion.
3	Diffusion and Osmosis : Plant cells and diffusion , Membrane properties	Experiments on plasmolysis.
4	The chemical potential of water , water potential , Osmotic potential .	Experiments on Imbibition.
5	The chemical potential of water , water potential , Osmotic potential .	Experiments of measuring transpiration.
6	Semester 1 st exam	
7	Examples and applications of the plant cell, water potential and its components	Experiments on movement and translocation of water.
8	Plasmolysis , Imbibition.	Experiments on solute transport and minerals.
9	Mechanism of water Absorption.	Experiments on movement and translocation in the phloem.
10	Water Movement and water transport .Mechanism of water Translocation , Bleeding and Guttation	Experiments on movement and translocation in the phloem.
11	Respiration.	Experiments on photosynthesis.
12	Semester 2 nd exam	
13	Respiration.	Experiments on photosynthesis.
14	Photosynthesis	Experiments on respiration


 Teacher's signature
 Assist. Prof. Dr. Zeina Sami Rashid
 15/1/2025


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