Republic of Iraq

The Ministry Of Higher Education

& Scientific Research

بسم الله الرحمن الرحيم

University: Diyala
College: Agriculture
Department: Horticulture and landscape Design
Stage: 2
Lecturer name:Dr. Nisreen Mohammed Hathal
Qualification:Ph.D
Place of work: University of Diyala

Course Instructor	**Nisreen Mohammed Hathal**				
E-mail	**nisreenmohammed@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**
	20	**15**	**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 1st 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 2nd exam	
13	Respiration.	Experiments on photosynthesis.
14	Photosynthesis	Experiments on respiration