

University: Diyala
College: Agriculture
Department: Field Crops
Stage: second
Lecturer name: Ghuffran Ali Hussien
Qualification: MSC
Place of work: Coll. Of Agriculture

حمن الرحيم



Republic of Iraq
The Ministry Of Higher Education
Scientific Research &

Flow up of implementation celli pass play

Course Instructor	Ghuffran Ali Hussien				
E-mail	ghuffranali@uodiyala.edu.iq				
Title	Plant Anatomy				
Course Coordinator	Spring				
Course Objective	Introduce students to the types of plant cells and their components, the function of each component. Developing the student's ability to know .the different plant tissues, organs and cells and their functions				
Course Description	definition of plant anatomy, study the cell of high plants ant it components of Cell wall, Cytoplasm, Neucolus , Plastids, .Mitochondria and studying tissues of plant				
Textbook	Al-Khazraji, Talib Awad and Zaira Bakr Muhammad. 2013. - Plant Anatomy: Principles and Applications Anatomy of a plant - written by Dr. Badri Owaid Al-Ani - - 1980 / sources from the Internet				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	20%	15%	10%	5	50%
General Notes					

Republic of Iraq

The Ministry Of Higher
Education

Scientific Research &

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



University: Diyala
College: Agriculture
Department: Field Crops
Stage: second
Lecturer name: Ghuffran Ali
Hussien
:Qualification
Place of work: Coll. Of
Agriculture

Flow up of implementation celli pass play

week	Date	Topics Covered	Practical Part
1	1 st week	Introduction to Plant Anatomy	Laboratory tools and equipment
2	2 nd week	Plant Cell/ Non-Living Components of the Cell	The microscope and how to use it
3	3 rd week	Plant Cell/ Living Components	The plant cell and its non-living contents and preparing slides
4	4 th week	Meristematic plant tissues	Preparing slides of non-living contents in the plant cell
5	5 th week	First Exam	Meristematic plant tissues and their diagnosis under the microscope
6	6 th week	Perennial plant tissues	Semester 1st exam
7	7 th week	Semester 1st exam	Permanent plant tissues and their diagnosis under the microscope
8	8 th week	Connective tissues and Secretory cells and tissues	Permanent plant tissues and their diagnosis under the microscope
9	9 th week	Internal structure of the root	Connective tissues
10	10 th week	Internal structure of the stem	Preparation temporary slices of root tissue
11	11 th week	Internal structure of the leaf	Preparation temporary slices of stem tissue
12	12 th week	Semester 2nd exam	Preparation of temporary slices of leaf tissue
13	13 th week	Internal structure of the root	Semester 2nd exam
14	14 th week	Secondary thickening	Internal Anatomy of a Flower
15	15 th week	The internal structure of the plant and its relationship to the environment	Internal Anatomy of Fruits and Seeds



Instructor Signature
Msc. Ghuffran Ali Hussien
15/1/2025



Dean Signature
Prof. Dr. Raaed Ibrahim Khalil
15/1/2025