



وكالة الجامعة للشؤون التعليمية
البرامج الدراسية والتطوير

(5)

مختصر توصيف

التشريح والشكل الظاهري

(Course Syllabus)

Plant Anatomy & Morphology

التشريح و ظاهري للنبات	:
BIOL-121	:
أحياء عامة BIOL-101	:
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3	:
Course Information:	
Module Title:	Plant Anatomy & Morphology
Module ID:	BIOL-121
Prerequisite (Co-requisite) :	General Biology, BIOL-101
Co-requisite :	-
Course Level:	2 nd
Credit Hours:	3

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Module Description:

This course includes a brief study of morphology of different plant parts and a detail anatomical study of plant cell, roots, stems, leaves, flowers and fruits and finally the course explain how to differentiate & compare between different groups of plants depending on their different morphological & anatomical characters.

Module Aims:

1	Basics of floral morphology and anatomy.
2	Know the Anatomy and morphology of leaves, root, stems and vascular plants
3	Interpretation of the basic concepts of plant growth and development of various meristem that are involved in plant composition
4	Identification of the plant cell and tissue types and anatomy of modern plant and the appropriate members of the anatomical structure of the environment
5	Identify the anatomical structure of plants at the cellular, tissue and organ level and reproductive system in plant and fetal development and Identify the endosperm and non-endosperm plants

Learning Outcomes:

1	The students know cell, tissue and morphological structures of plants
2	The students know the importance of plants and plant material for primary production

3	The students can recognize and discuss cell, tissue and morphological structures of plants
4	Recognize the different types of seeds and its germination.
5	Acquire knowledge about the morphological features of plant parts and their modifications.

Course Contents:

(Subjects)	(Hours)	(Weeks)
Differences between plant and animal and cytology of plant cell and its organelles; diversity at the cellular level	3	1
Classification systems in the biosphere and plant systematics	3	1
Anatomy and morphology of the monocotyledon and dicotyledonous of the root (young and old)	3	1
Anatomy and morphology of the monocotyledon and dicotyledonous of the stem (young and old)	3	1
Vascular contact between the root and stem	3	1
Identify vascular cambium, vascular bundles and its types	3	1
Anatomy and morphology of the monocotyledon and dicotyledonous of the leaves (young and old)	3	1
Seed and seed germination.	3	1
Full morphological description of inflorescence, flower, Fruit and seed	3	1
Reproduction of plants: pollination, fertilization, seed and fruit set	3	1
Plant Tissues (Meristematic, Epidermis, Permanent, Vascular, Secretory)	3	1
Normal and anomalous secondary Thickening (Root, Stem)	3	1
Acclimation of Anatomy to Habitat (Aquatic Plants, Xerophytes, Halophytes)	3	1

Textbook and References:

ISBN	Publishing Year	Publisher	Author's Name	Textbook title
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B01JXWK43I	2016	SyraWood Publishing House (1683)	Austin Balfour	Plant Taxonomy
78- 0471738435	2006	Wiley-Liss; 3 rd edition	Ray F. Evert and Susan E. Eichhorn	Esau's Plant Anatomy: Meristems, Cells, and Tissues of the Plant Body: Their Structure, Function, and Development, 3rd Edition
	Publishing Year	Publisher	Author's Name	Reference
978- 1932846171	2008	The Blackburn Press	James D. Mauseth	Plant Form: An Illustrated Guide to Flowering Plant Morphology
978- 0521518055	2010	Cambridge University Press; 2 nd edition	Charles B. Beck	An Introduction to Plant Structure and Development: Plant Anatomy for the Twenty- First Century

