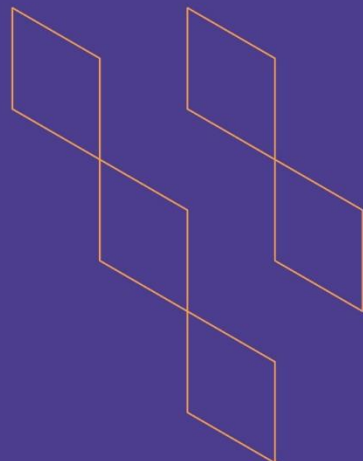




T-104
2022

Course Specification



Course Title: **PLANT MORPHOLOGY AND ANATOMY**

Course Code: **BOTN241**

Program: **BACHELOR OF BIOLOGY SCIENCE**

Department: **BIOLOGY**

College: **Science college**

Institution: **JAZAN UNIVERSITY**

Version:

Last Revision Date: 20 February 2023



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A. General information about the course:

Course Identification	
1. Credit hours:	3
2. Course type	
a.	University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Track <input type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is 4/2 offered:	
4. Course general Description REQUIRED	
5. Pre-requirements for this course (if any): General biology (BIOL101).	
6. Co- requirements for this course (if any): NONE	
7. Course Main Objective(s)	
<p>What is the main purpose for this course?</p> <p>This course aims at giving the student knowledge in the fields:</p> <ul style="list-style-type: none"> - Plant Morphology and Anatomy. - Seed germination - Plant morphology and anatomy in relation to habitat 	

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	22	66.7%
2.	E-learning	11	33.3%
3.	Hybrid <ul style="list-style-type: none"> • Traditional classroom • E-learning 		
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	20

2.	Laboratory/Studio	10
3.	Field	0
4.	Tutorial	10
5.	Others (specify)	8
	Total	48

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Define all principals, concepts, theories and aspects concerning with plant Morphology.	K1.1	IN CLASS INTERACTIONS	IN CLASS EXAMS
1.2	Draw all systems, organs, cells and its contents, diagrams and figures of biological science	K2.3	IN CLASS INTERACTIONS	IN CLASS EXAMS
1.3	Classify all biological specimens and processes	K3.3	IN CLASS INTERACTIONS	IN CLASS EXAMS
2.0	Skills			
2.1	Examine theoretically or practically the slides, photos, diagrams or statements of biological aspects.	S1.3	IN CLASS INTERACTIONS	IN CLASS EXAMS
2.2	Argue different biological approaches in laboratory or field or even theoretically.	S2.2	IN CLASS INTERACTIONS	IN CLASS EXAMS
...				
3.0	Values, autonomy, and responsibility			
3.1	Access multiple sources of information, capture essential information, and distinguish it from extraneous data.	V1.3	HOMEWORK	HOMEWORK
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction- study of Light and electron microscope.	2
2.	Morphology of root system -types and modifications.	4
3	Morphology of shoot system -types and modifications.	3

4	Plant cell structure and organelles.	2
5	Non-living components - Plant tissues structure and function.	2
6	Anatomy of young roots (Monocot and Dicot).	2
7	Anatomy of young roots (Monocot and Dicot).	2
8	Normal secondary thickening of root and stem.	2
9	Anomalous secondary thickening of root.	2
10	Anomalous secondary thickening of stem.	1
Total		22

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	THEORY QUIZ	3	5%
2.	THEORY HOMEWORK	4	5%
3.	PRACTICAL QUIZ	6	5%
4.	PRACTICAL HOMEWORK	4	5%
5.	THEORY MID.	6	10%
6.	FINAL PRACTICAL	8	20%
7.	FINAL THEORY	11	50%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Al-Bayomi A., Saleh Y., Sayed O. (2000) Fundamentals of Botany. Arab Publishing and Distribution House, Cairo, Pp. 541, ISBN 977-258-143-5 Bell A., Bryan A. (2008) An Illustrated Guide to Flowering Plant Morphology. Oxford University Press. Oxford
Supportive References	- Evert R., Eichhorn S. (2010) Esau's Plant Anatomy. John Wiley. New York مورفولوجيا وتشريح النبات (2011) حسين العروسي وآخرون، مكتبة المعارف الحديثة
Electronic Materials	http://highered.mcgraw-hill.com/sites/0072510846
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1 Lecture room(s) for groups of 50 students. 1 Plant Morphology and Anatomy Laboratory / 25 students.
Technology equipment (projector, smart board, software)	AV, data show, Smart Board and Blackboard Platform
Other equipment (depending on the nature of the specialty)	Light microscopes, glassware, chemicals, consumables also scientific papers.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, Faculty	Direct (Questionnaire)
Effectiveness of students assessment	Peer Reviewer	Direct (Cross Check marking)
Quality of learning resources	QA. Committee	Indirect (Benchmarking)
The extent to which CLOs have been achieved	Program Leader	Indirect (QA Committee)
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)



G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	

