هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104

Course Specification

Course Title:	Archegoniates
Course Code:	BOTN242
Program:	Biology
Department:	Biology
College:	Science
Institution:	Jazan University
Version:	V2022
Last Revision Date:	02-02-2023 Enter Course Title : Archegoniates

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	2				
2. Course type					
a.	University ☐	College ☐	Department☒	Track☐	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered:	Six/two				
4. Course general Description : The course is dealing with the study of non-flowering plants grouped into Bryophytes, Pteridophytes and Gymnosperms.					
5. Pre-requirements for this course (if any): **BOTN241**					
6. Co- requirements for this course (if any): None					

7. Course Main Objective(s)

1- **Understand the morphology and anatomy of primitive (non- flowering) land plants such as Bryophytes, Pteridophytes and Gymnosperms.**

2- **Study about the structure, function and development of various organs of non-flowering plants.**

3- **Understand the development of simple to complex organs and vascular tissue.**

4- **Understand the process of plant evolution from spore bearing plants to naked seeded plants.**

5- **Study the economic importance various non-flowering plants.**

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	10	83.4%
2.	E-learning	2	16.6%
3.	Hybrid • Traditional classroom • E-learning		
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	12
2.	Laboratory/Studio	22
3.	Field	
4.	Tutorial	
5.	Others (specify)	2
	Total	**35**

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 non-flowering plants (Archegoniates).	K1.1	Lectures, demonstration	Quizzes, Short Answer
1.2	Differentiate (Compare) between different mechanisms, functions, practices and aspects related to non-flowering plants (Archegoniates).	K2.1	Lectures, demonstration	Question, MCQs
1.3	Draw all systems, organs, cells and its contents, diagrams and figures of non-flowering plants (Archegoniates).	K2.3	Lectures, Lab work	Quizzes, Short Answer
1.4	Classify all biological specimens and processes related with non-flowering plants (Archegoniates).	K3.3	Lectures, Lab work	Question, MCQs
2.0	Skills			
2.1	Examine theoretically or practically the slides, photos, diagrams or statements of non-flowering	S1.3	Lectures, Lab work	Quizzes, Short Answer
3.0	Values, autonomy, and responsibility			
3.1	Develop competencies in critical thinking, delivering scientific information, reporting and data analysis.	V3.2	Group Discussion, Demonstration	Quizzes, Assignments, PowerPoint presentations

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Archegoniates and Bryophytes general characteristics, classification and economic importance	1
2.	Liverworts Riccia and Marchantia	1
3.	Hornworts(Anthoceros) and Mosses(Funaia)	1
4.	Pteridophytes general characteristics spore bearing structures vascular tissues and economic importance. Brief morphology of Rhynia and Psilotum	1
5.	Pteridophytes (Lycopodium, Selaginella)	1
6.	Pteridophytes (Equisetum and Marsilea).	1
7.	Pteridophytes (Pteridium)	1
8.	Steles in Pteridophytes	Self-Learning
9	Gymnosperms- General characters	1
10	Gymnosperms- Cycas	1
11	Gymnosperm- Pinus	2
12	Gymnosperms economic importances	Self-Learning
Total		11

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Theoretical quiz 1	3	5
2.	Practical Quiz	5	5
3.	Mid-term exam Theory	6	10
4.	Theoretical written Assignment I	7	3
5.	Theoretical written Assignment II	9	2
6.	Practical Assignment	10	5
7	Final practical exam	11	20
8.	Final l exam	12	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	Pandey, S. N., Shital, P., Misra, P. and S. Trivedi.(2013). A Textbook of Botany: Bryophyta, Pteridophyta, Gymnosperms and paleobotany. Vikas Publishing House. New Delhi.
Supportive References	Vashista B.R. (2009) Botany Degree Classes. Bryophyta. Indian Bookstore, New Delhi. Vashista B.R. (2009) Botany Degree Classes. Pteridophyta. Indian Bookstore, New Delhi. Vasishta, P. C., Sinha, A. K. and Anil Kumar (2009). Botany for degree students : Gymnosperms. S. Chand & Company Pvt. Ltd. New Delhi.
Electronic Materials	www.rmbr.nus.edu.sg/research/terrestrial/bryophytes www.rmbr.nus.edu.sg/research/terrestrial/pteridophytes https://courses.lumenlearning.com/boundless-biology/chapter/gymnosperms/
Other Learning Materials	Various web resources and YouTube videos

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 Laboratory for group of 14 students.
Technology equipment (projector, smart board, software)	AV, data show, Smart Board.
Other equipment (depending on the nature of the specialty)	Light microscopes, glassware, chemicals, specimen consumables, Dissection tools.

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(CrossCheck marking)
Quality of learning resources	Program Leader	Indirect(QA Committee)

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	QA Committee	Indirect(Bench marking)
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	