هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title:	*General Botany 1*
Course Code:	*BIO1205*
Program:	*Bachelor of Science in Biology*
Department:	*Department of Biology*
College:	*Faculty of Science*
Institution:	*University of Tabuk*
Version:	***Course Specification Version Number***
Last Revision Date:	*September 2023*

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours:					
3 Credit (2 theoretical + 1 practical) hours					
2. Course type					
A.	☐University	☐ College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (4th Level / 2nd year)					
4. Course general Description:					
The course includes introduction and historical background of Botany, general characters of living organisms with emphasis on plants, Systems of classification; the concept of identification, classification and nomenclature; the concept of cell, general characters of each of algae, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms including reproduction and life cycle, taxonomically studies on some plant families (monocot and dicot) and the evolutionary relationship between the different plant groups.					
5. Pre-requirements for this course (if any)**:**					
Fundamentals of Biology (BIO1101).					
6. Co-requirements for this course (if any)**:**					
None					
7. Course Main Objective(s):					
By the end of this course, the students should be able to: - Develop knowledge and understanding of the specific characteristics of living organisms in general and describe key characteristics that make each plant group unique and distinct. - Illustrate systems of biological classification, principles of general taxonomy, order of the levels of organization of living things, and use of nomenclature rules in Botany. - Understand the evolutionary relationships among organisms in general, and between different plant groups in particular. - Describe and sketch the generic life cycle and reproduction method of each plant phylum. - Develop the skills to overcome common mistakes distinguishing between monocot and dicot plants.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	2	50%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		
5	**Others (Lab work)**	2	50%

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	30
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		**60**

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	Memorize the taxonomic features, general characteristics, and lifecycle of different plant groups.	K1	-Lectures. -Class discussion. -Group discussion. -Case studies.	-Quizzes -Midterm examination. -Final examination. -Class discussion and participation. - Homework (Problem-solving).

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.2	Recall systems of biological classification, general principles of plant taxonomy rules, and the Linnaean binomial system of nomenclature in naming plants.	K1	-Lectures. -Class discussion. -Group discussion. -Homework assignments. -Case studies.	-Quizzes -Midterm examination. -Final examination. -Class discussion and participation. -Homework assignments.
1.3	Describe the functions of a plant cell and its organelles, with examples of how plant structure relates to its function.	K2	-Lectures. -Class discussion. -Group discussion. -Homework assignments. -Case studies.	-Quizzes -Midterm examination. -Final examination. -Class discussion and participation. -Homework assignments.
2.0	**Skills**			
2.1	Demonstrate the basic concepts and terminology of Botany.	S1	-Lectures. - Lab work. -Class discussion. -Group discussion. -Brainstorming.	-Quizzes -reports -Final examination. -Class discussion and participation. - Homework (Problem-solving).
2.2	Evaluate the evolutionary	S2	-Lectures.	-Quizzes

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	relationships between plant groups and sketch the lifecycle and structural parts of the plant.		-Lab work. -Class discussion. -Group discussion. -Brainstorming.	-reports -Final examination. -Class discussion and participation. - Homework (Problem-solving).
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate the ability to work independently and in a team during field study and lab studies.	V1	-Short essay -Class discussion. -Group discussion.	-Class discussion and participation. -Homework (Problem-solving).
3.2	Illustrate the use of scientific research in the field of Botany.	V2	- Projects. -Group working.	- Homework assignments. - Problem class discussions.

C. Course Content

No	List of Topics	Contact Hours
1.	Course introductory	2
2.	General characteristics of living organisms. plant history and plant in relation to life science.	2
3.	Algae: General characteristics & Classification (Green Algae).	2
4.	Algae: General characteristics & Classification (Red Algae).	2
5	Algae: General characteristics & Classification (Brown Algae).	2
6.	Algae: Reproduction & Life cycle.	2
7.	Lichens: General characteristics, classification, reproduction, and life cycle.	2
8.	Bryophytes: General characteristics including reproduction and life cycle.	2

9.	Pteridophytes: General characteristics including reproduction and life cycle.	2
10.	Gymnosperms: General characteristics including reproduction and life cycle.	2
11.	Angiosperms: General characteristics including reproduction and life cycle.	2
12.	Taxonomical studies on some plant families (monocot).	2
13.	Taxonomical studies on some plant families (dicot).	2
14.	The evolutionary relationships between the different plant groups (Part1).	2
15.	The evolutionary relationships between the different plant groups (Part2).	2
Total		**30**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Class Participation	During whole teaching period	5
2.	Homework (Problem-solving)	3 to 13	5
3.	Short Exams (Quizzes)	During whole teaching period	5
4.	Midterm Theoretical Examination	8-9	20
4.	Reports (For Practical)	During whole teaching period	10
5.	Final Practical Examination	15	15
6.	Final Theoretical Examination	17	40

*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	- Mauseth, J. D. (2014). 5th Ed., Botany: an introduction to plant biology. Jones & Bartlett Publishers.

	- General Botany – Gilbert M. Smith (2007). 3rd Ed. New York, the Macmillan Co. 1937.
- Supportive References	- PH Raven, Evert RF, Eichhorm SE (1999) Biology of Plants, 6th edition. WH Freeman, New York. - Campbell, Neil A.; Jane B. Reece (2002). Biology (6th Ed.). Benjamin Cummings - Benjamin Cummins (2007), Biological Science (3rd Ed.), Freeman, Scott, p. 215.
Electronic Materials	- Introduction to Botany: textbook (PDF) - https://sdl.edu.sa/SDLPortal/Publishers.aspx
Other Learning Materials	Multimedia, textbooks and the related websites.

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	- Classrooms accommodate about 60 students/ room. - Laboratories accommodate about 30 students/ Lab.
Technology equipment (projector, smart board, software)	Well-equipped lab and lecture room with computers and display screens installed with curtains on the windows are required.
Other equipment (depending on the nature of the specialty)	Fresh plant specimens when available.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students. - Faculty members.	Indirect & direct: - Questionnaires. - Meetings.
Effectiveness of Students assessment	- Quality and development committee. - Department chair.	- Course report. - Program annual report.
Quality of learning resources	- Plan and program committee. - Students. - Staff members.	Indirect & direct: - Questionnaires. - Meetings. - Reports.
The extent to which CLOs have been achieved	- Quality and development committee.	Indirect & direct: - Questionnaires. - Meetings.

Assessment Areas/Issues	Assessor	Assessment Methods
	- Peer Reviewer. - Program leaders	- Reports.
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	PROGRAMS AND STUDY PLANS COMMITTEE
REFERENCE NO.	
DATE	SEPTEMBER 2023