هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title:	*Flora of KSA*
Course Code:	*BIO1307*
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: (6th Level / 3rd year)					
4. Course general Description:					
This course includes introduction to Flora, principles and evolutionary trends in taxonomy, Herbarium essentials, Plant conservation in Kingdom of Saudi Arabia, history of plant classification and nomenclature, plant taxonomic terms, plant diversity in the flora of Kingdom of Saudi Arabia and taxonomic study of important dicot and monocot families.					
5. Pre-requirements for this course (if any):					
Biodiversity (BIO1208). General Botany 2 (BIO1301).					
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: - Illustrate the diversity of the KSA's climatic features, terrain, and habitats. - Introduce students to the unique Saudi flora and describe the phytogeographical distribution in the KSA. - Characterize the life of the local wild plants and their development under various environmental and climatic conditions. - Identify unknown plants using taxonomic keys and guides. - Collect, dry and conserve plant specimens for deposit as a herbarium, dissect flowers, and take photographs of flowering plants as aids in their identification and classification.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	2	50%

No	Mode of Instruction	Contact Hours	Percentage
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	Recognize the information on flora, geographic context, and various ecosystems	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	List the taxonomic study of major plant families of Saudi Arabia.	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	Differentiate between different floral families.	S1	-Lectures. -Lab work. -Class discussion. -Group discussion. -Brainstorming. - Field Trip.	-Quizzes -reports -Final examination. -Class discussion and participation. - Homework (Problem-solving).
2.2	Prepare the herbarium of different wild floral species (monocot & dicot).	S2	-Lectures. -Lab work -Class discussion. -Group discussion. -Brainstorming.	-Quizzes -reports -Final examination. -Class discussion and participation. - Homework (Problem-solving).

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.3	Apply identification techniques on different wild plants in Saudi Arabia.	S3		
3.0	**Values, autonomy, and responsibility**			
3.1	Work in a team and independently to conduct a specific project.	V1	-Lab demonstration. -Class discussion. -Group discussion. - Field Trip.	-Class discussion and participation. -Homework (Problem-solving).

C. Course Content

No	List of Topics	Contact Hours
1.	Course introduction.	2
2.	Introduction to Flora: Objectives, Principles.	2
3.	Introduction to Flora: Evolutionary trends in taxonomy	2
4.	Herbarium essential-1-2	2
5.	Herbarium essential-3-4	2
6.	Plant conservation in Kingdom of Saudi Arabia (Botanical Survey, Botanic gardens, Botanical museum and Herbarium)1.	2
7.	Plant conservation in Kingdom of Saudi Arabia (Botanical Survey, Botanic gardens, Botanical museum and Herbarium)2	2
8.	History of Plant Classification.	2
9.	Plant Nomenclature.	2
10.	Plant diversity in the flora of Kingdom of Saudi Arabia-1.	2
11.	Plant diversity in the flora of Kingdom of Saudi Arabia-2.	2
12.	Taxonomic study of important dicot families.	2
13.	Taxonomic study of important monocot families and Revision.	2
14.	Phytography and Terminology of Plant Description .	2
15.	Plant Conservation.	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	- Flora of the Kingdom of Saudi Arabia Illustrated, vol 3, (2011). Ministry of Agriculture & Water, Original from, the University of Michigan. - Anthony G Miller, Anthony G. Miller Thomas A. Cope, Professor J A Nyberg (2008): Flora of the Arabian Peninsula and Socotra, Volume 5, Part 1. Edinburgh University Press.
Supportive References	- Mandaville, J. P. (2013). Flora of Eastern Saudi Arabia. Routledge. - Coffin, B., & Pfannmuller, L. (Eds.). (1988). Minnesota's endangered flora and fauna. U of Minnesota Press.
Electronic Materials	- Websites on the internet that are relevant to the topics of the course. - www.sciencedirect.com - www.plantphysiol.org.
Other Learning Materials	- NTSYS pc program, for numerical taxonomy system, Version 2.2.

2. Required Facilities and equipment

Items	Resources
Accommodation .Classrooms, laboratories, demonstration rooms/labs, etc	- A sufficient number of classrooms to accommodate students - Well-equipped practical laboratories to accommodate students
Technology Resources (AV, data show, Smart Board, software, etc.)	- Data show - Wireless connection in the building for students and faculties.
Other Resources Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list	- Herbarium sheets (41.9 x 26.7cm) 100gm - Geological Hammer – Vasculum – Digger-Trowel - Pruning Knife - Shear - Herbarium wooden frame for Specimens pressed. - Secateurs Vine-S. - Secateurs Comfort. - Plastic tape -Plastic or paper bag - Specimen Bottle-Herbarium Boxes-Files for preservation of herbarium - Cupboards for preserving herbarium - Dichotomous key for plant classification - Maps for Saudi Arabia

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.

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	- Quality and development committee. - Peer Reviewer. - Program leaders.	Indirect & direct: - Questionnaires. - Meetings. - 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