Course Specification

(Postgraduate Programs)

Course Title:	Biodiversity Conservation and Management
Course Code:	BIOD530
Program:	Mater's in Biodiversity
Department:	Department of Biology
College:	Faculty of Science
Institution:	University of Tabuk
Version:	2
Last Revision Date:	18/11/1444 H

Table of Contents

A. General information about the course:

1. Course Identification:

1. Credit hours: 3 Credit Hours (2 Theoretical + 1 Practical)				
2. Course type				
A.	☐University	☐College	☒ Department	☐Track
B.	☒ Required		☐Elective	
3. Level/year at which this course is offered: (Level 4/ Second year)				
4. Course General Description:				

This course covers topics on the conservation and management of the biodiversity of plants and animals in their natural habitats and selected areas. It also supports the development of practical skills in the conservation of animal and plant species, wildlife conservation, habitat management, and ecological sustainability. Also, it provides in-situ and ex-situ conservation of plants, and animals, translocation of animals and plants, the UN Convention on Biological Diversity and the member countries, national biodiversity authority, and conservation acts. It also describes the Environmental Protection Act and the Wildlife Protection Act. Further, it provides case studies from local and global communities on the conservation and management of biodiversity.

5. Pre-requirements for this course (if any)**:**

- Plant and Animal Genetic Resources (BIOD503).

6. Pre-requirements for this course (if any)**:**

- None.

7. Course Main Objective(s):

- Describe biodiversity and conservation in the context of a range of natural ecosystems including woodlands, grasslands, and wetlands.
- Support the development of practical skills in habitat assessment and species identification.
- Describe in-situ and ex-situ conservation of plants and animals.
- Describe the UN Convention on Biological Diversity and the member countries.
- Know national biodiversity authority and conservation acts.
- Describe the Environmental Protection Act and the Wildlife Protection Act.
- Apply modern methods used for wildlife conservation, habitat management ecological sustainability.

2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	20
3.	**Field**	10
4.	**Tutorial**	
5.	**Others (specify)……**	
	Total	60

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

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Explain the key concepts and principles of biodiversity conservation and management.	**K1**	- Lectures. - Seminars. - Class discussions. - Problem-solving classes. - Self-learning.	- Written exams (Midterm and Final exams). - Quizzes. - Class discussions.
1.2				
…				
2.0	**Skills**			
2.1	Apply principles of biodiversity		- Lectures. - Practical	- Written exams

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	conservation to design practical management plans for preserving key plant and animal species in specific environments.	**S1**	sessions. - Field works. - Seminars. - Class discussions. - Problem-solving classes. - Self-learning. - Individual and group presentations. - Assignments. - Case studies.	(Midterm and Final exams). - Quizzes. - Practical sessions. - Field works. - Class discussions. - Individual and group presentations. - Assignments.
2.2	Analyze the methods of conserving and managing the biological diversity of plant and animal populations.	**S2**	- Seminars. - Practical sessions. - Field works. - Class discussions. - Problem-solving classes. - Self-learning. - Individual and group presentations. - Assignments. - Case studies.	- Written exams (Midterm and Final exams). - Quizzes. - Practical sessions. - Field works. - Class discussions. - Individual and group presentations. - Assignments.
2.3	Develop comprehensive management plans that incorporate ecological, social, and economic considerations for sustainable biodiversity conservation.	**S4**	- Lectures. - Practical sessions. - Field works. - Seminars. - Class discussions. - Problem-solving classes. - Self-learning. - Individual and group presentations. - Assignments. - Case studies.	- Written exams (Midterm and Final exams). - Quizzes. - Practical sessions. - Field works. - Class discussions. - Individual and group presentations. - Assignments.

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
...				
3.0	**Values, autonomy, and responsibility**			
3.1	Engage in effective teamwork by collaborating with peers or individually to achieve shared goals in biodiversity conservation and management projects.	**V2**	- Class discussions. - Individual and group presentations. - Assignments.	- Class discussions. - Practical sessions. - Field works. - Indivdual and group presentations. - Assignments.
3.2				
...				

C. Course Content:

No	List of Topics	Contact Hours
1.	Introduction and Main Concept in Biodiversity Conservation & Management.	2
2.	In-situ and ex-situ conservation of plants, methods, and applications.	2
3.	Important plant species for conservation in a selected area in KSA.	2
4.	In-situ and Ex-situ conservation of animals.	2
5.	Methods of conservation and important animal species of selected areas in KSA (Part I).	2
6.	Methods of conservation and important animal species of selected areas in KSA (Part II).	2
7.	Animals and plants translocation.	2
8.	Protected areas and National Parks.	2
9.	Environmental Protection Act and the Wildlife Protection Act.	2
10.	Forest Conservation Act.	2
11.	Organizations, Conventions, and Conservation Acts (CITES, IUCN, RAMSAR sites).	2
12.	UN Convention on Biological Diversity and Member Countries.	2
13.	National Biodiversity Authority and Conservation Acts.	2
14.	Biodiversity Boards, Committees, and Registers.	2
15.	Case Studies on Biodiversity Conservation and Management.	2
Total		**30**

D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes, Class discussions, Assignments	Distributed over 14 weeks	10
2.	Individual or group presentation	Distributed over 14 weeks	10
3.	Laboratory Reports, Field Reports	Distributed over 14 weeks	10
4.	Midterm Exam	9	20
5.	Practical Exam	16	10
6.	Final Exam	18	40
	Total		**100**

*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	- Thangadurai, D., Islam, S., Sangeetha, J. and Goh, H. C. (2019). Biodiversity and Conservation: Characterization and Utilization of Plants, Microbes and Natural Resources for Sustainable Development and Ecosystem Management, 1st edition. Apple Academic Press Inc., Canada. ISBN-13: 978-1771887489. - Hawksworth, D. (2010). Management and the Conservation of Biodiversity. Springer. ISBN 978-90-481-3844-9. - Gherardi, F., Corti, C. and Gualtieri, M. (2010). Biodiversity - Conservation and Habitat Management, Vol. II. EOLSS Publications.
Supportive References	- *Biodiversity and Conservation.* - *International Journal of Biodiversity Science, Ecosystems Services & Management.*
Electronic Materials	- Saudi Digital Library. - UNSEDOC Digital Library. - www.sciencedirect.com
Other Learning Materials	- None.

2. Educational and Research Facilities and Equipment Required:

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	- A sufficient number of classrooms and well-equipped laboratories are available to accommodate up to 25 students. - Library.
Technology equipment (Projector, smart board, software)	- Data show projectors and wireless internet connections available for students and faculties. - Data show projectors and wireless internet connections available for students and faculties. - Smart blackboard. - Computer Portable PowerPoint presentations.
Other equipment (Depending on the nature of the specialty)	- None.

F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students.	- Direct & indirect.
Effectiveness of students' assessment	- Course instructors & Course coordinator (Teachers).	- Direct.
Quality of learning resources	- Students.	- Indirect.
The extent to which CLOs have been achieved	- Course instructors. - Course coordinator. - Quality Committee.	- - Direct & indirect.
Other	- None.	- NA.

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data:

COUNCIL /COMMITTEE	**Department of Biology Council**
REFERENCE NO.	**Department Council NO (26)**
DATE	**26/11/1444 H**