



# Course Specification

— (Postgraduate)

Course Title: Biodiversity and Conservation in Saudi Arabia
Course Code: BIOD540
Program: Master's in Biodiversity
Department: Department of Biology
College: Faculty of Science
Institution: University of Tabuk
Version: 2
Last Revision Date: 18/11/1444 H



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## 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 studies biodiversity and conservation and the national strategies for the conservation of biodiversity in the Kingdom of Saudi Arabia (KSA). It also includes in-situ and ex-situ conservation of plants and animals as well as conservation, and development of natural resources in KSA. Besides, its studies regulate access to genetic resources, the convention on biological diversity, member countries, national biodiversity authority, and conservation acts and legislations. Also, it introduces the modern methods used for wildlife conservation, habitat management ecological sustainability, and environmental education in KSA.

### 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 Saudi Arabia.
- 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 Convention on Biological Diversity.
- 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, and environmental education in Saudi Arabia.

### 2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> </ul>		

No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		

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

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

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

Co de	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Demonstrate a thorough understanding of in-situ and ex-situ biodiversity conservation approaches in the context of KSA.	K1	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Seminars.</li> <li>- Class discussions.</li> <li>- Problem-solving classes.</li> <li>- Self-learning.</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams (Midterm and Final exams).</li> <li>- Quizzes.</li> <li>- Class discussions.</li> </ul>
1.2	Describe the impact of national and international laws on biodiversity and conservation in KSA.	K2	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Seminars.</li> <li>- Class discussions.</li> <li>- Problem-solving classes.</li> <li>- Self-learning.</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams (Midterm and Final exams).</li> <li>- Quizzes.</li> <li>- Class discussions.</li> </ul>
1...				
2.0	Skills			
2.1	Examine conservation methods for key plant and animal species in	S2	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Field works.</li> <li>- Seminars.</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams (Midterm and Final exams).</li> </ul>



Co de	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	selected areas of KSA.		<ul style="list-style-type: none"> <li>- Class discussions.</li> <li>- Problem-solving classes.</li> <li>- Self-learning.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>	<ul style="list-style-type: none"> <li>- Quizzes.</li> <li>- Field reports.</li> <li>- Class discussions.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>
2.3	Evaluate the impact of biodiversity conservation laws on ecosystems, species, and habitats in KSA.	<b>S3</b>	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Seminars.</li> <li>- Class discussions.</li> <li>- Problem-solving classes.</li> <li>- Self-learning.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams (Midterm and Final exams).</li> <li>- Quizzes.</li> <li>- Field reports.</li> <li>- Class discussions.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>
2.4	Develop effective strategies for conserving floral and faunal diversity in KSA.	<b>S4</b>	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Seminars.</li> <li>- Class discussions.</li> <li>- Problem-solving classes.</li> <li>- Self-learning.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>	<ul style="list-style-type: none"> <li>- Written exams (Midterm and Final exams).</li> <li>- Quizzes.</li> <li>- Field reports.</li> <li>- Class discussions.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Demonstrate professionalism in analyzing and discussing conservation challenges in KSA.	<b>V1</b>	<ul style="list-style-type: none"> <li>- Class discussions.</li> <li>- Field reports.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>	<ul style="list-style-type: none"> <li>- Class discussions.</li> <li>- Field reports.</li> <li>- Individual and group presentations.</li> <li>- Assignments.</li> </ul>
....				

### C. Course Content:

No	List of Topics	Contact Hours
1.	Purpose and Scope of the National Strategy on Biodiversity.	2
2.	The Convention on Biological Diversity.	2
3.	Principles for Conserving Biodiversity.	2
4.	Status of and threats to biodiversity.	2
5.	Strategic goals for conservation and sustainable use of biodiversity.	2
6.	In-situ Conservation of Biodiversity - Inside Protected Areas.	2
7.	In-situ Conservation of Biodiversity - Outside Protected Areas.	2
8.	Ex-situ Conservation of biodiversity - Botanic / Zoological Gardens. (Part I).	2
9.	Ex-situ Conservation of biodiversity - Botanic / Zoological Gardens. (Part II).	2
10.	Conserve and Develop Forests, Woodlands, and Deserts. (Part I).	2
11.	Conserve and Develop Forests, Woodlands, and Deserts. (Part II).	2
12.	Conserve and Develop Marine Resources.	2
13.	Regulate Access to Genetic Resources.	2
14.	Environmental Legislation, Education, and Awareness.	2
15.	Nature-Based Tourism (Eco-tourism).	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.	Field works	Distributed over 14 weeks	20
4.	Midterm Exam	9	20
5.	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	<ul style="list-style-type: none"> <li>- Al-Abdulkader, A., Loughland, R. A. and (2019). Ecosystems and Biodiversity of the Arabian Gulf, Saudi Arabian Waters: fifty-years of Scientific Research. Saudi Aramco &amp; King Fahd University of Petroleum &amp; Minerals. ISBN: 978-603-02-7862-6.</li> <li>- Gherardi, F., Corti, C. and Gualtieri, M. (2010). Biodiversity Conservation and Habitat Management, Vol. II. EOLSS Publications.</li> <li>- AbuZinada, A. H., Robinson, E.R. Nader, I. A. and Al Wetaid, Y. I. (2005). Convention on Biological Diversity. The National Strategy for Conservation of Biodiversity in the Kingdom of Saudi Arabia. The National Commission for Wildlife Conservation and Development, Saudi Arabia. <a href="https://www.cbd.int/doc/world/sa/sa-nbsap-01-en.pdf">https://www.cbd.int/doc/world/sa/sa-nbsap-01-en.pdf</a></li> </ul>
Supportive References	<ul style="list-style-type: none"> <li>- <i>Biodiversity and Conservation.</i></li> <li>- <i>International Journal of Biodiversity Science, Ecosystems Services &amp; Management.</i></li> </ul>
Electronic Materials	<ul style="list-style-type: none"> <li>- Saudi Digital Library.</li> <li>- -UNSEDOC Digital Library.</li> <li>- <a href="http://www.sciencedirect.com">www.sciencedirect.com</a>.</li> </ul>
Other Learning Materials	<ul style="list-style-type: none"> <li>- None.</li> </ul>

## 2. Educational and Research Facilities and Equipment Required:

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ul style="list-style-type: none"> <li>- A sufficient number of classrooms and well-equipped laboratories are available to accommodate up to 25 students.</li> <li>- Library.</li> </ul>
<b>Technology equipment</b> (Projector, smart board, software)	<ul style="list-style-type: none"> <li>- Data show projectors and a wireless internet connection are available for students and faculties.</li> <li>- Smart blackboard.</li> <li>- Computer Portable PowerPoint presentations.</li> </ul>
<b>Other equipment</b> (Depending on the nature of the specialty)	<ul style="list-style-type: none"> <li>- None</li> </ul>

#### F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students.	- Direct & Indirect.
Effectiveness of student's 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		

**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