



Course Specification

(Bachelor)

Course Title: Biodiversity in Saudi Arabia

Course Code: APEP2602

Program: Diploma- Technology of Environmental Protection

Department: Biology

College: Faculty of science

Institution: Umm Al-Qura University

Version: 2

Last Revision Date: 12- 2024



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A. General information about the course:

1. Course Identification

1. Credit hours: 3 Credits (2 theoretical + 1 practical)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (1st Year /1st Level)

4. Course General Description:

This course aims to give the students a general overview to the diverse fauna and flora of Saudi Arabia as an introduction to more advanced courses in their study plan. And will also elaborate on the roles of governmental organizations in contribution to limiting excessive hunting, and efforts in conservation of endangered plant and animal species.

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

principles of Ecology

6. Co-requisites for this course (if any):

7. Course Main Objective(s):

The main two objectives of this course are; to provide students' with general knowledge about the effects of geography and climate changes over the geological periods on the ecosystem and consequently on plants and animals in Saudi Arabia, and to teach the significance of maintaining a well-conserved environment for the endangered species to keep the biodiversity of Saudi Arabia.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		80%
2	E-learning		20%
3	Hybrid		





No	Mode of Instruction	Contact Hours	Percentage
	<ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30 h
2.	Laboratory/Studio	14h.
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		

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	<p>Upon successful completion of this course, the student:</p> <p>Will have a general knowledge of the diverse plant and animal species of Saudi Arabia</p>	K1	<p>-In-class lecturing</p> <p>-Homework assignments</p> <p>-Discussions (connecting what they learn in the class.</p>	<p>-Homework and -Quizzes.</p> <p>-Midterm and final written exams</p> <p>-Evaluation of reports</p>
1.2	Will have a wide knowledge about main factors that affect biodiversity	K2	<p>-Handout of lecture notes for each topic</p> <p>-Small group discussions.</p>	-Oral presentation
1.3	Will be familiar with conservation areas and organizational roles in Saudi Arabia	K4		
2.0	Skills			





Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
2.1	Having successfully completed the course students should be able to: Present about some conservation areas in Saudi Arabia	S2	Application of essential scientific techniques through lectures and essays. Small group discussion	Evaluation of the topics prepared by students. -Midterm and final exams -Checking the homework assignments
2.2	Understand the principle of conservation and sustainability		Ask the students to make small search projects during the semester	
2.3	Discuss ecosystem and wildlife threats and how to maintain biodiversity		Class discussions (Engage students in interaction with questions and answers).	
2.4	Research and data collection		Homework assignments Field trip	
3.0	Values, autonomy, and responsibility			
3.1	Teamwork	V1	Students’ presentation assignment	Assignments (Individual and group)
3.2	Eco-consciousness	V2	Students task assignments	Presentation (Individual and group) assessments. Research search assignments
...				





C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Biodiversity and its importance (What is biodiversity? Causes of biodiversity, status of global biodiversity)	2
2, 3	Wildlife Ecology (Life on Earth- Wildlife and Society- Population, territorial defense, home range of the individual species populations- Environmental and Field Techniques).	4
4.	Habitats diversity and Geological periods and their effect on Biodiversity (status of biodiversity in Saudi Arabia)	2
5.	-Wildlife threats on examples of terrestrial and aquatic plant and animal species in Saudi Arabia -Climate change, migration and wildlife (Human influence on wildlife)	2
6.	Midterm- Exam	2
7.	Plant biodiversity in Saudi Arabia (Flora and ecology)	2
8.	Herbarium projects and farming projects (animal and fish farming..etc.)	2
9.	Animal biodiversity in Saudi Arabia (Fauna and ecology)	2
10.	Wildlife Conservation areas in Saudi Arabia (Hunting rules, areas management)	2
11.	Principles of conservation and maintenance of ecosystem balance	2
12.	Sustainability to reserve natural resources and biodiversity	2
13.	The awareness of biodiversity and resistance for extinction in Saudi Arabia	2
14	Biodiversity economically and medically	2
15	Modern techniques in the study and conservation of biodiversity: -Using technology in monitoring and protecting biodiversity. - Applications of artificial intelligence in the study of the environment.	2
Total		30

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes, Project, Problem Sets	3	5%
2.	Midterm examination (Theory)	6	15%





No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
3.	Midterm examination (practical)	7	10%
4.	Group project	9-10	10%
5.	Final examination (practical)	15	20%
6.	Final examination (Theory)	16	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	Biodiversity and Conservation (Springer) by Editor-in-Chief: David L. Hawksworth (PDF) Books on biodiversity and conservation (researchgate.net)
Supportive References	Wild Life (saudiwildlife.com)
Electronic Materials	https://uoh.blackboard.com • www.google.com
Other Learning Materials	Course notes and PPT prepared by faculty member responsible for the course

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ul style="list-style-type: none"> Classroom with suitable size to accommodate students with social distancing and air conditioned. Laboratory assistance.
Technology equipment (projector, smart board, software)	<ul style="list-style-type: none"> Computers and internet connection. E-mail communications. projector, smart board, software
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of Students assessment		
Quality of learning resources		





Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved		
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Umm Al-Qura University Council
REFERENCE NO.	851141114462/190635
DATE	22/11/1446

