

Course Specification

— (Postgraduate Programs) عبد المحسن بن أبي طالب عزير بن عبد الله بن حمد بن الناصر

Course Title: Natural Resources in Arid Lands

Course Code: BIO-6029

Program: Master of Science in Applied Biology (Biodiversity, Wildlife Conservation & Management)

Department: Biology

College: Science

Institution: Imam Mohammad Ibn Saud Islamic University

Version: 1

Last Revision Date: *Pick Revision Date.*



عبدالمطعم بن أبي الطموزي رحمه الله ورحمته بي الناصر

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عبدالمطعم بن أبي الطموزي رحمه الله ورحمته بي الناصر



A. General information about the course:

1. Course Identification:

1. Credit hours: 2(Lecture 2+ Lab 0)

2. Course type

A. ☐ University ☐ College ☐ Department ☒ Track

B. ☐ Required ☒ Elective

3. Level/year at which this course is offered: (Undetermined level)

4. Course General Description:

This graduate course deals with the basic concepts of natural resources in a desert area, focusing on desert systems and different types of them. Also, it discusses the physical, biological and temporal components of the desert, the evolution of the desert and eremology studies. This course helps students to understand the desert's natural resources minerals, borax, gypsum, sodium nitrate, fossil fuels, metallic minerals, Rocks and gemstones. This course also provides desert biodiversity, desert as climate indicator and desert as reach archaeological sources

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

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

7. Course Main Objective(s):

The objective of this course is to cover the major desert resources and their management.

2. Teaching Mode: (mark all that apply)

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



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	
4.	Tutorial	
5.	Others (specify)	
	Total	30

B. Course Learning Outcomes, Teaching Strategies, Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Recognize different types of deserts		Two credits weekly lectures	-Quizzes -Presentations -Assignments -written exams
1.2	Understand desert natural resources , desert biodiversity and archaeological resources		Two credits weekly lectures	Quizzes -Presentations -Assignments -written exams
2.0	Skills			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.1	Demonstrate ecological importance of deserts.		-Two credits weekly lectures -Tutorials	-Presentations -Assignments -written exams
2.2	Use desert sand in industry.		-Two credits weekly lectures -Tutorials	-Presentations -Assignments -written exams
2.3			-Two credits weekly lectures -Tutorials	-Presentations -Reports
3.0	Values, autonomy, and responsibility			
3.1	Ability to work and communicate effectively in groups	3.1	Group discussions	-Presentations -Reports
3.2	Carry out assigned tasks limited responsibility	3.2	Group discussions	-Presentations -Reports

C. Course Content:

No	List of Topics	Contact Hours
1.	Defining desert system and different types, coastal , cold , hot and dry	3
2.	Evolution of deser, Future Challenges for Deserts and Ecological Researchers	3
3.	Eremology studies, Desert ecology and biodiversity , Desert as climatic indicators.	3
4.	Desert as reach Archaeolgal sources, Different desert resources Oil, Natural Gas and Minerals.	3
5.	Sodium nitrate, fossil fuels, metallic minerals as a desert resources	3
6.	borax, gypsum, Rocks and gemstones in desert	3
7.	Physicochemical characterization of desert sand and industry.	2
Total		30

D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam-1	5 th week	20%
2.	Midterm exam-2	10 th week	20%
3.	Assignments, presentations, attendance, data search, participation	Throughout the course duration	20%
4.	Final exam	16 th week	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	Natural resource and environmental economics / Roger Perman . . . [et al.]. 3rd ed.p. cm. Rev. ed. of: Natural resource and environmental economics / Roger Perman, Yue Ma, James McGilvray. 1996. Includes bibliographical references and index. ISBN 0-273-65559-0 (pbk.).
Supportive References	The Ecology of Desert Communities Edited by Gary A. Polis University of Arizona Press, 1991 Library of Congress QH541.5.D4E28 1991 Dewey Decimal
Electronic Materials	Deserts as Ecosystems: Why They Need Protecting EnvironmentalScience.org
Other Learning Materials	Electronic materials of Lecture notes and PowerPoints available in Black Board Platform

2. Educational and Research Facilities and Equipment Required:

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom
Technology equipment (Projector, smart board, software)	Projector, smart board
Other equipment (Depending on the nature of the specialty)	



F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of students assessment	Faculty	Direct
Quality of learning resources	Faculty	Direct
The extent to which CLOs have been achieved	Faculty	Direct
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data:

COUNCIL /COMMITTEE	BIOLOGY DEPARTMENT COUNCIL
REFERENCE NO.	23
DATE	23/8/1445