Course Specification

(Bachelor)

Course Title: Fauna and Flora in Local Environment

Course Code: EVS 1359

Program: Bachelor of Science in Environmental Science

Department: Biology

College: Science

Institution: Imam Mohammed Ibn Saud Islamic University

Version: 1

Last Revision Date: -

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A. General information about the course:

1. Credit hours: 3 (Lecture 2 + 2 Lab)

2. Course type

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

3. Level/year at which this course is offered: (8th Level / 4th year)

4. Course general Description:

This course offers a comprehensive examination of the varied plant and animal life present in the Kingdom of Saudi Arabia. Students will explore the distinct ecosystems, adaptations, and conservation issues related to the desert environment of Saudi Arabia. Participants will get a thorough comprehension of the kingdom's abundant biodiversity and the factors that impact its conservation through a blend of lectures, field trips, and research projects.

An introduction to the various species of plants and animals, both marine and terrestrial, and their distribution throughout the Kingdom of Saudi Arabia. The course will focus on the study of climate, geomorphology, and their impact on plant and animal life. It will familiarize students with the diverse range of academic fields related to wild plants and animals, including endemic and endangered species. Examination of biological classification systems and examination of both physical characteristics and reproductive characteristics linked with local plants and animals.

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

Plant Ecosystems (EVS1114)   & Animal Behaviour and Environment (EVS1216)

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

None

7. Course Main Objective(s):

1. Understand the ecological significance of Saudi Arabia's flora and fauna within the context of its desert environment.

2. Identify key plant and animal species native to various regions of the kingdom and their respective adaptations to arid conditions.

3. Analyze the interdependencies among different components of Saudi Arabia's ecosystems, including plant-animal interactions and trophic relationships.

4. Explore the cultural and economic importance of certain species to the people of Saudi Arabia, past and present.

5. Evaluate the current conservation status of threatened species and habitats in the kingdom and assess conservation strategies and initiatives.

6. Develop practical skills in field observation, data collection, and analysis relevant to studying Saudi Arabia's biodiversity.

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 • E-learning	-	-
4	Distance learning	-	-

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	Describe the taxonomy, ecology, and natural history of native fauna and	K1-K2	Weekly lectures Class discussions	Quizzes, midterm exams, and final exam

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	flora in Saudi Arabia.			
1.2	Outline the principles of evolution, and conservation biology and how they are used to manage fauna and flora, and solve environmental problems.	K2-K3	Weekly lectures Class discussions	Quizzes, midterm exams, and final exam
1.3	Clarify the impacts of land use and environmental management decisions on ecosystems and society.	K2	Weekly lectures Class discussions	Quizzes, midterm exams, and final exam
2.0	**Skills**			
2.1	Demonstrate an emerging ability to identify and record observations of fauna and flora in the field.	S2-S3	Weekly lectures Class discussions	Lab reports and Lab exam
2.2	Relate the structure and physiology of native plants and animals to their survival in Saudi Arabian environments.	S2-S4	Weekly lectures Class discussions	Lab reports and Lab exam
3.3	Recognize the inherent and practical value of	S2-S4	Weekly lectures Class discussions	Presentations, reports, seminars

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	the diversity of the Saudi Arabian fauna and flora.			
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate the ability to perform the assigned work independently and collaborate with interdisciplinary teams to achieve common goals.	V1	Group discussions	-Presentations -Reports
3.2	Share in specialized events and present research data effectively through different modes and for varied audiences.	V2	Group discussions	-Presentations -Reports
3.2	Show accountability and share positively in scientific discussions and decision-making processes.	V3	Group discussions	Presentations -Reports

C. Course Content

No	List of Topics	Contact Hours
1.	Definitions and importance of fauna and flora (maintaining the ecological balance, aesthetic value, expansion of local economies).	6
2.	Ecology and biodiversity.	4
3.	Fauna and flora habitats.	4
4.	Fauna and flora diversity and geographic distribution.	4
5.	Species interactions and diversity.	4
6.	Plants and animals: rare species, endangered species, extinct species, endemic species, vulnerable species.	4
7.	Threats and maintaining fauna and flora.	4
Total		30

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm 1	Around 4th - 5th week	15%
2.	Midterm 2	Around 7th - 8th week	15%
3.	Quizzes, Participation, and Attendance	During the semester	10%
4.	Lab reports	During the semester	5%
5.	Lab Exam	15th week	15%
6.	Final Exam	16th week	40%
Total			**100%**

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

Essential References	- Megahid A.M., 1989. Flora of Saudi Arabia, King Saud University, Riyadh. - Mandaville J.P., 1990. Flora of Eastern Saudi Arabia, John Wiley & Sons Ltd., London, 560p, ISBN: 9780203038208, DOI: https://doi.org/10.4324/9780203038208.
Supportive References	- AbuZinada A.H., 2001. First Saudi Arabian National Report on the Convention on Biological Diversity. Robinson E.R., Iyad A.N., Al Wetaid Y.I. (eds), 131p. - Wittmer W., Büttiker W., Krupp F., Mahnert V., 1988. Fauna of Saudi Arabia, volume 9, Pro Entomologia c/o Natural History Museum (eds), ISBN: 3723400086, 9783723400081.
Electronic Materials	• https://simonderbyshire.home.blog/2019/05/31/flora-and-fauna-of-saudi-arabia/ • https://www.plantdiversityofsaudiarabia.info/Biodiversity-Saudi-Arabia/Flora/Flora.htm • https://animalia.bio/saudi-arabia-animals
Other Learning Materials	

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms and Laboratories
Technology equipment (projector, smart board, software)	Projector and Smartboard
Other equipment (depending on the nature of the speciality)	-

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct
Effectiveness of Students assessment	Program Leader	Direct
Quality of learning resources	Peer Reviewer	Indirect
The extent to which CLOs have been achieved	Program Leader	Direct
Other	-	-

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	