هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد NCAAA

T15

Course Specifications
(Postgraduate Degree)

Course Title:	**Wildlife Ecology and Management**
Course Code:	**BIOD 548**
Program:	**M. Sc. Biodiversity**
Department:	**Biology**
College:	**Science**
Institution:	**University of Tabuk**

Table of Contents

A. Course Identification

1. Credit hours: 3 Credit Hours (2 Theoretical + 1 Practical)
2. Course type ☐ Required ☒ Elective
3. Level/year at which this course is offered: Level 4/Second year
4. Pre-requisites for this course (if any)**: BIOD 507**
5. Co-requisites for this course (if any)**: None**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	4	100
2	**Blended**		
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
1	**Lecture**	26
2	**Laboratory/Studio**	26
3	**Seminars**	
4	**Others (Research)**	
Total		52

B. Course Objectives and Learning Outcomes

1. Course Description:

- This course explores the wildlife and the metapopulations of wildlife. It includes flora and fauna, forest ecosystems, fragmentation, and habitat loss that lead to species extinction. It also covers topics on the continued biodiversity loss due to invasive species, endangered animals and plants, sampling, and related research methods such as theoretical models, maximum risk projections, the general linear modeling in wildlife studies, and life table evaluations. The course also concentrates on animal sampling and the ongoing management protocols used in natural wildlife habitats. Further, the course provides case studies on wildlife ecology and management (e.g. Population management, wildlife environmental management).

2. Course Main Objective

By the end of this course, the students should be able to:

- Understand the relationships between socioeconomics, governance, wildlife management, and the ecosystem services that are provided by the wildlife and their habitats.
- Identify the different factors that cause biodiversity loss.
- Recognize the social and political aspects of wildlife management.
- Estimate the population size, density, and other population dynamic parameters (Capture-Mark-Recapture, Mark-Resight).
- Develop awareness about ecological limits and ecosystem restructuring.

3. Course Learning Outcomes

	Course Learning Outcomes (CLOs)	Aligned PLOs*
1	**Knowledge and Understanding**	
1.1	Recognize the scientific, technical, and regulatory bases of wildlife management and conservation.	K4
1.2	Describe various issues concerning wildlife management.	K1
1.3	Outline the ongoing management protocols used in natural wildlife and their values in wildlife conservation.	K1
1.4	Describe the policies, decision-making processes, social and political considerations that influence wildlife management.	K2
1…		
2	**Skills:**	
2.1	Predict appropriate solutions for problems related to the depletion of wildlife.	S4
2.2	Demonstrate the management of selected wildlife populations through relevant case studies.	S3
2.3	Evaluate the application of information theory, maximum likelihood estimation, and generalized linear modeling in studying wildlife populations.	S3
2...		
3	**Values:**	
3.1	Illustrate how and why species are monitored and/or captured for wildlife population management.	V1
3.2	Demonstrate ecological and behavioral concepts to the management of wildlife populations and habitats.	V2
3.3	Perform individual research studies in the field of wildlife conservation and management.	V2
3...		

* Program Learning Outcomes

C. Course Content

No	List of Topics	Contact Hours
1	Introduction, the structure of wildlife ecosystems	2
2	Community structure and function	2
3	Habitats and nutrition	2
4	Population cycles	2
5	Population growth patterns	2
6	Population Dynamics I and II	2
7	Endangered Species: Threats, Stressors, and Reintroduction	2
8	Wildlife Control: Overabundant Species	2
9	Harvest Management: Hunting and Trapping, Predator-Prey Relationship	2
10	Wildlife Biodiversity Hotspots	2
11	Special Species: Flagships, Indicators, and Keystones	2
12	Wildlife Habitat Management, Restoration and Conservation	2
13	Case studies on Wildlife Ecology and Management	2
Total		26

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Recognize the scientific, technical, and regulatory bases of wildlife management and conservation.	- Lectures. - Group discussions. - Brainstorming. - The use of educational techniques (Videos). - Student's seminars. - Individual presentation. - Field activities.	- Oral discussions. - Long and short essays. - Exams (Mid and Final) - Homework. - Quizzes. - Demonstrations. - Lab. reports. - Field reports.
1.2	Describe various issues concerning wildlife management.		
1.3	Outline the ongoing management protocols used in natural wildlife and their values in wildlife conservation.		
1.4	Describe the policies, decision-making processes, social and political considerations that influence wildlife management.		
1…			
2	**Skills**		
2.1	Predict appropriate solutions for problems related to the depletion of wildlife.	- Lectures. - Group discussions. - Brainstorming. - Simulation. - Research paper-based learning. - The use of interactive video. - Lab. demonstrations. - Individual presentation. - Field activities.	- Peer assessment. - Self-evaluation. - Oral discussion. - Exams (Mid and Final) - Quizzes. - Individual and group presentations. - Lab. reports. - Field reports.
2.2	Demonstrate the management of selected wildlife populations through relevant case studies.		
2.3	Evaluate the application of information theory, maximum likelihood estimation, and generalized linear modeling in studying wildlife populations.		
2…			
3.0	**Values**		
3.1	Illustrate how and why species are monitored and/or captured for wildlife population management.	- Research activities. - Oral presentations. - An internet search, assignments, and essays. - Group discussion. - Case studies. - Individual, and group presentations.	- Student's essays and assignments. - Group reports. - Group presentations. - Discussion in lectures. - Student's written participation. - Analytical reports. - Lab. reports. - Case studies. - Posters. - Dissertation.
3.2	Demonstrate ecological and behavioral concepts to the management of wildlife populations and habitats.		
3.3	Perform individual research studies in the field of wildlife conservation and management.		
3…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Activities and Short Quizzes	Distributed over 8 weeks	10
2	Pre-Final Practical Exam	8	10
3	Pre-Final Theoretical Exam	8	25
4	Final Practical Exam	15	15
5	Final Theory Exam	16	40
6			
7			
8			
	Total		100

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

- Eight office hours per week per faculty member.
- Academic advising sessions 1hr/ week per faculty member.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- Hegazy A., Lovett-Doust-J (2016) Plant Ecology in the Middle East. Oxford scholarship online. ISBN-13: 9780199660810, DOI:10.1093/acprof:oso/9780199660810.001.0001 - Krausman, P. R. and Cain, J. W. (2013). Wildlife Management and Conservation. John's Hopkins University Press. - Fryxell, J. M., Sinclair, A. R. E. and Caughley. G. (2014). Wildlife Ecology, Conservation and Management. Wiley Inc.
Essential Reference Materials	- *The Journal of Wildlife Management.* - *Journal of Wildlife and Biodiversity.* - *Journal of International Wildlife Law and Policy.*
Electronic Materials	- Saudi Digital Library. - UNSEDOC Digital Library. - www.sciencedirect.com
Other Learning Materials	- Multimedia that is associated with the textbook and the relevant websites.

2. Educational and Research Facilities and Equipment Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	- A sufficient number of classrooms, well equipped practical laboratories are available to accommodate 30-40 students.
Technology Resources (AV, data show, Smart Board, software,	- Data show projectors and wireless internet connection available for students and faculties.

Item	Resources
etc.)	- Smart blackboard. - Computer Portable PowerPoint presentations.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	- Lecture slides. - Reference Book. - A Note Book for writing notes. - Well-equipped biology laboratory.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
- Effectiveness of teaching and assessment.	- Students.	• Indirect - Questionnaires.
- Quality of learning resources.	- Program committee. - Staff members. - Students.	• Direct - Questionnaires. - Reports. - Meetings.
- The extent of achieving the course learning outcomes.	- Program leaders. - Peer Reviewer.	• Direct & Indirect - Questionnaires. - Reports. - Meetings.

Evaluation Areas/Issues (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Biology Department Members who constructed the program
Reference No.	Committee members – The academic year 1441/1442
Date	