



# Course Specification

— (Postgraduate)

Course Title:	Wildlife Ecology and Management
Course Code:	BIOD548
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 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, 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).

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

Terrestrial Biodiversity - BIOD507

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

None

### 7. Course Main Objective(s):

- Understand the relationships between socioeconomics, governance, wildlife management, and the ecosystem services that are provided by 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.

### 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).....	
<b>Total</b>		<b>60</b>

## 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
<b>1.0</b>	<b>Knowledge and understanding</b>			
1.1	Recognize current wildlife management protocols and their significance in wildlife conservation.	<b>K2</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> </ul>	<ul style="list-style-type: none"> <li>- Written exams (Midterm and Final exams).</li> <li>- Quizzes.</li> <li>- Class discussions.</li> </ul>
1..				
<b>2.0</b>	<b>Skills</b>			
2.1	Apply wildlife population management principles to analyze and propose solutions for management challenges using case studies.	<b>S1</b>	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Field works.</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>

Co de	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.2	Analyze wildlife population data to identify trends and relationships using statistical methods.	S2	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Field works.</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>
2.3	Evaluate how information theory, maximum likelihood estimation, and generalized linear modeling are applied in wildlife population studies.	S3	<ul style="list-style-type: none"> <li>- Lectures.</li> <li>- Field works.</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...				
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Demonstrate commitment to ethical research practices and thorough analysis in individual wildlife conservation studies.	V1	<ul style="list-style-type: none"> <li>- Class discussions.</li> <li>- Presentations.</li> <li>- Assignments.</li> <li>- Essays.</li> <li>- Report.</li> <li>- Presentations.</li> </ul>	<ul style="list-style-type: none"> <li>- Class discussions.</li> <li>- Assignments.</li> <li>- Essays.</li> <li>- Reports.</li> <li>- Presentations.</li> </ul>
3.2	Participate effectively in both teamwork and individual tasks to address wildlife population management challenges.	V2	<ul style="list-style-type: none"> <li>- Class discussions.</li> <li>- Field works.</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.	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. (Part I).	2
8.	Endangered Species: Threats, Stressors, and Reintroduction, (Part II).	2
9.	Wildlife Control: Overabundant Species.	2
10.	Harvest Management: Hunting and Trapping, Predator-Prey Relationship.	2
11.	Wildlife Biodiversity Hotspots.	2
12.	Special Species: Flagships, Indicators, and Keystones. (Part I).	2
13.	Special Species: Flagships, Indicators, and Keystones. (Part II).	2
14.	Wildlife Habitat Management, Restoration and Conservation.	2
15.	Case studies on Wildlife Ecology and Management.	2
<b>Total</b>		<b>30</b>

### D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	Distributed over 14 weeks	10
2.	Individual or group presentation	Distributed over 14 weeks	10
3.	Field Reports	Distributed over 14 weeks	20
4.	Midterm Exam	9	20
5.	Final Exam	18	40
<b>Total</b>			<b>100</b>

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

### E. Learning Resources and Facilities:

#### 1. References and Learning Resources:

<b>Essential References</b>	<ul style="list-style-type: none"> <li>- 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</li> <li>- Krausman, P. R. and Cain, J. W. (2013). Wildlife Management and Conservation. John's Hopkins University Press.</li> <li>- Fryxell, J. M., Sinclair, A. R. E. and Caughley. G. (2014). Wildlife Ecology, Conservation and Management. Wiley Inc.</li> </ul>
<b>Supportive References</b>	<ul style="list-style-type: none"> <li>- <i>The Journal of Wildlife Management.</i></li> <li>- <i>Journal of Wildlife and Biodiversity.</i></li> <li>- <i>Journal of International Wildlife Law and Policy.</i></li> </ul>
<b>Electronic Materials</b>	<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>
<b>Other Learning Materials</b>	<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
<b>Effectiveness of teaching</b>	<ul style="list-style-type: none"> <li>- Students.</li> </ul>	<ul style="list-style-type: none"> <li>- Direct &amp; Indirect.</li> </ul>
<b>Effectiveness of student's assessment</b>	<ul style="list-style-type: none"> <li>- Course instructors &amp; Course coordinator (Teachers).</li> </ul>	<ul style="list-style-type: none"> <li>- Direct.</li> </ul>
<b>Quality of learning resources</b>	<ul style="list-style-type: none"> <li>- Students.</li> </ul>	<ul style="list-style-type: none"> <li>- Indirect.</li> </ul>
<b>The extent to which CLOs have been achieved</b>	<ul style="list-style-type: none"> <li>- Course instructors.</li> <li>- Course coordinator.</li> </ul>	<ul style="list-style-type: none"> <li>- Direct &amp; Indirect.</li> </ul>

Assessment Areas/Issues	Assessor	Assessment Methods
	- Quality Committee.	
<b>Other</b>		

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

**Assessment Methods** (Direct, Indirect)

### G. Specification Approval Data:

<b>COUNCIL /COMMITTEE</b>	Department of Biology Council
<b>REFERENCE NO.</b>	Department Council NO (26)
<b>DATE</b>	26/11/1444 H