Course Specification
(Bachelor)

Course Title:	*Animal Ecology and Behavior*
Course Code:	*BIO1409*
Program:	*Bachelor of Science in Biology*
Department:	*Department of Biology*
College:	*Faculty of Science*
Institution:	*University of Tabuk*
Version:	***Course Specification Version Number***
Last Revision Date:	*September 2023*

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours:					
3 Credit (3 Hours -Theory)					
2. Course type					
A.	☐University	☐ College	☒ Department	☐Track	☐Others
B.	☐ Required		☒ Elective		
3. Level/year at which this course is offered: (7th Level / 4th year)					
4. Course general Description:					
The objective of the course is to study animals' ecology (how they related to each other as well as their environment). In addition, the course is designed to cover related topics, such as studying the activities of animals during their lifetime, including their feeding, breeding, capture of prey, avoidance of predators, and social behavior. Animals send signals, respond to signals or stimuli, carry out maintenance behavior, make choices, and interact with one another. The course will focus on animal behaviors as adaptation response that maximize the probability of an individual to survive and reproduce in given environments.					
5. Pre-requirements for this course (if any):					
Vertebrates (BIO1207).					
6. Co-requirements for this course (if any):					
None					
7. Course Main Objective(s):					
This course aims to provide a professional learning for people with interest in animal ecology and wildlife conservation sector. The course aims to acquire students with knowledge regarding the concept of developing behavior as well as the importance of studying animal ecology and how it may relate to their behavior in response to variety of environmental factors.					

2. Teaching mode (mark all that apply)

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

No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		
5	**Others (specify)**		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others**	
Total		**45**

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 types of animal behavior.	K1	-Lectures. -Class discussion. -Group discussion. -Case studies.	-Quizzes -Periodic examination. -Final examination. -Class discussion and participation. -Homework (Problem-solving).
1.2	Recognize the communication between animals from different	K2	-Lectures. -Class discussion. -Group discussion. -Homework assignments. -Case studies.	-Quizzes -Periodic examination. -Final examination.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
				-Class discussion and participation. -Homework assignments.
2.0	**Skills**			
2.1	Collect and analyze of behavioral data	S3,S6	-Lab work. -Lectures. -Class discussion. -Group discussion. -Brainstorming. - Filed trip.	-Quizzes -reports -Final examination. -Class discussion and participation. -Homework (Problem-solving).
2.2	Use computers and internet to analyze behavioral data.	S4	-Lab work. -Lectures. -Short essay -Class discussion. -Group discussion. -Brainstorming. -Filed trip.	-Quizzes -reports -Final examination. -Class discussion and participation. -Homework (Problem-solving).
3.0	**Values, autonomy, and responsibility**			
3.1	Work independently and as part of a team.	V1	-Short essay -Class discussion. -Group discussion. -Individual or group presentation.	-Class discussion and participation. -Homework (Problem-solving).
3.2	Illustrate the use of scientific research in the field of animal behavior studies.	V2	- Projects. -Group working.	- Homework assignments.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
			-Individual or group presentation.	- Problem class discussions.

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Animal Ecology and Behavior	3
2.	Hypotheses in Behavioral Ecology	3
3.	Control of Behavior (Nervous system & Endocrine system)	3
4.	The Development of Behavior (innate vs learned behavior)	3
5.	Predators versus prey: evolutionary arms races	3
6.	Biological Clocks	3
7.	Animal Communication	3
8.	Cooperation and Altruism	3
9.	Habitat selection Foraging Behavior	3
10.	Social Behavior: Mating and Reproductive Behavior	3
11.	Homing & Navigation Behavior	3
12.	Climate change and Behavior	3
13.	Competing for Resources	3
14.	Mating Systems	3
15.	The effects of behavior on evolution	3
	Total	45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	During whole teaching period	10
2.	Homework (Problem-solving)	3 to 13	5
3.	Class Participation	During whole	5

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
		teaching period	
4.	1st Periodic exam	6	20
5.	2nd Periodic exam	10	20
6.	Final Theoretical Exam	17	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	- Nicholas B. Davies. 2012. An Introduction to Behavioural Ecology. Wiley-Blackwell. - Shawn Nordell 2013. Animal Behavior: Concepts, Methods, and Applications. Oxford University Press.
Supportive References	- Michael D. Breed. 2015. Animal Behavior. Academic Press.
Electronic Materials	- Saudi Digital Library, https://www.sdl.edu.sa/SDLPortal/Publishers.aspx - http://www.animalbehavior.com
Other Learning Materials	- Videos, slides and presentations that are available with the instructor.

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Well-equipped classrooms that accommodate a sufficient number of students.
Technology equipment (projector, smart board, software)	Multimedia projectors and smart boards.
Other equipment (depending on the nature of the specialty)	Electronic resources and transportations means for field trips.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students. - Faculty members.	Indirect & direct: - Questionnaires.

Assessment Areas/Issues	Assessor	Assessment Methods
		- Meetings.
Effectiveness of Students assessment	- Quality and development committee. - Department chair.	- Course report. - Program annual report.
Quality of learning resources	- Plan and program committee. - Students. - Staff members.	Indirect & direct: - Questionnaires. - Meetings. - Reports.
The extent to which CLOs have been achieved	- Quality and development committee. - Peer Reviewer. - Program leaders.	Indirect & direct: - Questionnaires. - Meetings. - Reports.
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	PROGRAMS AND STUDY PLANS COMMITTEE
REFERENCE NO.	
DATE	SEPTEMBER 2023