# **Institute of Zoology Faculty of Life Sciences**

## University of the Punjab, Lahore Course Outline



Programme	BS Zoology	Course Code	ZOOL-213	<b>Credit Hours</b>	2
Course Title	Animal Behavior				

#### **Course Introduction**

Animal Behavior is a fascinating field that explores the various ways of interaction of animals with their environment and other species. This course covers the fundamental concepts and terminology used in the study of animal behavior. It emphasizes to learn animal responses to external stimuli and their behavioral mechanisms. It will be interesting for the students to understand the role of genetic and neurophysiology in behavioral development.

#### **Learning Outcomes**

On the completion of the course the student will be able to:

- 1. Learn the fundamental information and knowledge of animal behavior
- 2. Associate the role of external and internal stimuli on various animals during the day, season and year
- 3. Relate daily biological rhythms
- 4. Predict variety of animal actions which will be assessed by innate and learnt behavior study
- 5. Integrate the animal behavior as balanced mechanism to develop animal personality

Course Content		Assignments/Readings		
Week 1	Introduction     Approaches and methods			
Week 2	Proximate and ultimate causes of behavior     Role of external and internal stimuli in animal responses			
Week 3	Physiology of behavior     Hormones and behavior in animals			
Week 4	Innate behavior and innate releasing mechanisms     Learnt behavior and its mechanisms; quick learner vs slow learners			
Week 5	Effect of genes on animal behavior     Concept of territoriality and defense in animals			
Week 6	Biological rhythms     Maintenance of internal biological clock to perform various diurnal and nocturnal periodicities			
Week 7	<ol> <li>Cost and benefit ratio in behavior</li> <li>Successful foragers and winners of predator-prey relationships</li> </ol>			
Week 8	Communication     Visual, bioacoustics, electrical, chemical and tactile communication			
Week 9	Competition for resources     Survival of the most suitable individuals			
Week 10	Social organization in animals     Group living; benefits and losses			

Week 11	Migration     Benefits and consequences of migration		
Week 12	1. Foraging 2. Optimal foraging		
Week 13	<ol> <li>Hibernation</li> <li>Aestivation</li> </ol>		
Week 14	Habituation     Sensitization		
Week 15	Imprinting     Altricial vs precocial		
Week 16	Altruism and parental sacrifice to nurture the young		

## **Textbooks and Reading Material**

- 1. Dngatkin, L. A. 2012. Principles of Animal Behavior. W.W. Nortan and Co. New York.
- 2. Alcock, J. 2010. Animal behavior, an evolutionary approach. 9<sup>th</sup> Edition. Sinauer Publishers.
- 3. Scott, G. 2009. Essential Animal Behavior. Wiley publishers
- 4. Scott, G. 2005. Essential Animal Behavior. Blackwell Pub. New York.
- 5. Goodenough, J., McGuire, B., Wallace, R.A. 2001.Perspective on Animal Behavior. John Wiley & Sons, New York.

## **Teaching Learning Strategies**

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

#### **Assignments: Types and Number with Calendar**

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

#### Assessment

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc. class Attendence
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.