

**Course Code: ZOO 409**  
**Number of Credits: 02**  
**Effective from AY: 2020 -21**

**Course Title: Ethology**

<b>Prerequisite for the Course:</b>	Basic knowledge of animal science and behaviour.	
<b>Objectives:</b>	This course develops concepts in the behaviour of animals such as underlying genetic and molecular mechanisms of behaviour as well as its importance in the animal kingdom	
<b>Content:</b>	<p><b>Module 1</b>            Introduction to Ethology :Social Behaviour:Parental care- Types, parent offspring conflict, Sexual strategies, mating types and Courtship, Aggression and territory            Communication in animals:Auditory, Echolocation, Infra and ultra sounds, Tactile, Visual, Pheromones- in vertebrates and invertebrates, Language of honey bees-circle and waggle dance            Feeding strategies: Heterotrophs, Parasitic, Saprophytes, Commensalism, mutualism, Coprophagy and Hematophagy</p> <p><b>Module 2:</b>            Learning and Imprinting: Introduction and definitions, Habituation, conditioning. Trial and error, Imprinting, Neural mechanism of learning.            Socio-biology: Introduction- definition, WO Wilson, Richard Dawkins, WD Hamilton, Units of Socio-biology. Hamilton's theory and Altruism, cooperation, reciprocation and Eusociality. Jane Goodall, Dian Fossey; Properties, advantages of a social group, Social organisation in primates.</p>	<p>04 hrs</p> <p>04 hrs</p> <p>04 hrs</p> <p>04 hrs</p> <p>08 hrs</p>
<b>Pedagogy:</b>	Lectures/ tutorials/assignments/self-study	
<b>Learning Outcome:</b>	1. Understand the genetic and molecular mechanisms underlying behaviour. 2. Gain insight on the different types of behaviours used for survival in the animal kingdom	
<b>References /Reading</b>	1. Alcock, J, Animal Behavior, Sunderland Sinauer Associates 2. Bonner JT, Evolution of Culture in Animals, Princeton Univ Press. New Jersey 3. Ehrman L and Parsons PA, The Genetics of Behavior, Sinauer Associates, Massachusetts. 4. Halliday T, Sexual Strategies, Oxford University Press, Oxford. Lythgoe, JN, The Ecology of Vision, Clarendon press, Oxford McFarland D, Animal Behavior, ELBS Longman Publ. London 5. Animal Behaviour by. Reena Mathur, Rastogi Publication, Meerut-New Delhi.	