**Name of the Programme:** M. Sc. Zoology
**Course Code:** ZOO–523 **Title of the Course:** Animal Behaviour (Theory)
**Number of Credits:** 03
**Effective from AY:** 2023-24

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| **Pre-requisites for the Course:** | Basic knowledge of animal science and behaviour | |
| **Course Objectives:** | 1. To develop concepts in animal behaviour<br>2. To analyze the different behaviours of animals<br>3. To assess the behaviours of human beings | |
| **Content:** | **Module 1**<br>Introduction to animal behaviour (ethology): social behaviour: parental care-types, parent offspring conflict, sexual strategies, mating types and courtship, aggression and territory.<br><br>Communication in animals: auditory, echolocation, infra and ultra sounds, tactile, visual, pheromones- vertebrates and invertebrates, language of honey bees-circle and waggle dance.<br><br>Feeding strategies: heterotrophs, parasitic, saprophytes, commensalism, mutualism, coprophagy and hematophagy. | 15 hours |
| | **Module 2**<br>Learning and imprinting, habituation, conditioning. trial and error, neural mechanism of learning in animals.<br><br>Socio-biology: Introduction, WO Wilson, Richard Dawkins, WD Hamilton, Units of socio-biology. Hamilton's theory and Altruism, cooperation, reciprocation and Eusociality. Contributions to sociobiology: Jane Goodall and Dian Fossy; Properties, advantages of a social group, social organization in primates. | 15 hours |
| | **Module 3**<br>Migration and navigation of animals: Introduction, types and causes of migration in fishes and birds, advantages of migration. Methods of studying migration and navigation. | 15 hours |

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| | Human ethology: Introduction, ethological concepts and human behavior, concepts of sign stimulus and imprinting, kinship and human social system, human beings and territorial behavior, human aggressive behavior. | |
| **Pedagogy:** | Lectures/ tutorials/assignments/self-study/Field study | |
| **References/ Readings:** | 1. J. Alcock, Animal Behavior: An Evolutionary Approach. United States: Oxford University Press, Incorporated, 2013.<br>2. R. Mathur, Animal Behaviour. India: Rastogi publications, 2014.<br>3. J.T. Bonner, The Evolution of Culture in Animals. United States: Princeton University Press, 2018.<br>4. L. Ehrman, P.A. Parsons, The Genetics of Behavior. United States: Sinauer Associates, 1976.<br>5. T. Halliday, Sexual Strategy. United Kingdom: Oxford University Press, 1980. | |
| **Course Outcomes:** | The learner will<br>1. Observe and interpret animal behaviour<br>2. Classify the different types of animal behaviour<br>3. Analyze the behavioural patterns of animals<br>4. Determine the reasons behind different behaviour | |

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