

SEMESTER I – ZOOLOGY

Remember, Understand, Apply, Analyze, Evaluate, Create : R, U, Ap, Az, E, C

Title of the Course: Animal Diversity – Invertebrates				
Sem-I	Credits : 4	Course Code: ZOO101T	Year/Group: IMZCA	HPW:4
Course Outcomes				Blooms Level
CO1	To acquire the knowledge of Invertebrates and to describe general Taxonomic rules on Animal classification			U
CO2	To classify the phylum Protozoa up to order level and to understand the Epidemiology of the Protozoan diseases			U,Az
CO3	To classify the phyla from Porifera till Echinodermata with taxonomic keys and to understand the basics of life processes in Invertebrates			U,Az,
CO4	To describe processes like Coral Reef formation in Cnidaria, Insect metamorphosis in Arthropoda and pearl formation in Mollusca			U

Title of the Course: Animal Diversity - Invertebrates PRACTICALS)				
Sem-I	Credits: 1	Course Code: ZOO101P	Year/Group: I MZCA	HPW: 2
Course Outcomes				Blooms Level
CO1	To gain hands on experience in identifying and understanding the morphology and anatomy of Invertebrates			Ap
CO2	To learn and apply dissection techniques to study the internal structures of selected invertebrates			Ap

SEMESTER II

Remember, Understand, Apply, Analyze, Evaluate, Create : R, U, Ap, Az, E, C

Title of the Course: Animal Diversity- Vertebrates				
Sem-II	Credits: 4	Course Code: ZOO201T	Year/Group: IMZCA	HPW: 4
Course Outcomes				Blooms Level
CO1	To impart conceptual knowledge of Vertebrates and their adaptations			U
CO2	To classify the phylums from Protochordata up to Mammalia			R
CO3	To understand the complex Vertebrate interactions			U
CO4	To understand and describe basics concepts of Anatomy, functions and evolution of Vertebrates			U, E

Title of the Course: (PRACTICALS) Animal Diversity- Vertebrate				
Sem-II	Credits: 1	Course Code: ZOO201P	Year/Group: I MZCA	HPW: 2
Course Outcomes				Blooms Level
CO1	To gain hands on experience in identifying and understanding the morphology and anatomy of Vertebrates			Ap
CO2	To learn and apply dissection techniques to study the internal structures of selected Vertebrates			Ap

SEMESTER III

Remember, Understand, Apply, Analyze, Evaluate, Create : R, U, Ap, Az, E, C

Title of the Course: Animal Physiology and Animal Behaviour				
Sem-III	Credits: 4	Course Code: ZOO301T	Year/Group: II MZC	HPW: 4
Course Outcomes				Blooms Level
CO1	To explain the fundamental principles of Animal Physiology			U
CO2	Physiological and Biochemical understanding of Human body.			U, Az
CO3	Interactions and inter-dependence of Physiological and Biochemical processes of various systems in Animals.			Az
CO4	To understand basic concepts of animal behavior, responses of animals towards different instincts and their adaptations			U

Title of the Course: Animal Physiology and Animal Behaviour (PRACTICALS)				
Sem-III	Credits: 1	Course Code: ZOO301P	Year/Group: II MZC	HPW: 2
Course Outcomes				Blooms Level
CO1	To gain proficiency in collecting, analysing and interpreting data related to animal physiology and animal behaviour			Ap
CO2	To develop practical knowledge of core processes such as digestion, excretion, circulation and enzyme activity.			Ap

SEMESTER IV

Remember, Understand, Apply, Analyze, Evaluate, Create : R, U, Ap, Az, E, C

Title of the Course: Cell Biology, Genetics and Developmental Biology				
Sem-IV	Credits: 4	Course Code: ZOO401T	Year/Group: II MZC	HPW: 4
Course Outcomes				Blooms Level
CO1	To understand the structural and functional aspects of Cell Biology.			U
CO2	To understand the mechanism of Gene Expression.			U
CO3	To apply the knowledge in solving genetic problems.			Ap
CO4	To understand the concepts behind Genetic disorders and Developmental Biology.			U

Title of the Course: Cell Biology, Genetics and Developmental Biology (PRACTICALS)				
Sem-IV	Credits: 1	Course Code: ZOO401P	Year/Group: II MZC	HPW: 2
Course Outcomes				Blooms Level
CO1	To perform experiments to understand cell division processes such as Mitosis and Meiosis through slide preparation and observation			U, Ap
CO2	To perform genetic crosses to study Mendelian and Non- Mendelian Inheritance and to observe and analyse various developmental stages in chick embryo			U, Ap

SEMESTER V

Remember, Understand, Apply, Analyze, Evaluate, Create : R, U, Ap, Az, E, C

Title of the Course: Immunology and Animal Biotechnology				
Sem-V	Credits: 4	Course Code: ZOO501TA	Year/Group: III MZC	HPW: 4
Course Outcomes				Blooms Level
CO1	To describe the major components of the Immune system and functioning and application of Biotechnology techniques in Animal Biology			U & E
CO2	To differentiate between Innate & Acquired Immunity and Humoral and Cell-mediated Immunity.			Az
CO3	To explain various Immune system disorders such as Autoimmunity, Immunodeficiency and Hypersensitivity reactions.			U & E
CO4	To understand the role of Animal Biotechnology in Modern Zoology focusing on applications of Biotechnology techniques to study & modify animal systems.			U, E & Ap

Title of the Course: Immunology and Animal Biotechnology (PRACTICALS)				
Sem-V	Credits: 1	Course Code: ZOO501PA	Year/Group: III MZC	HPW: 2
Course Outcomes				Blooms Level
CO1	To apply the practical knowledge of various techniques demonstrated to them on Immunology & Animal Biotechnology in future.			U, Ap
CO2	To study & identify the structure of different lymphoid organs by keenly observing their histology.			U, Az

SEMESTER VI

Remember, Understand, Apply, Analyze, Evaluate, Create : R, U, Ap, Az, E, C

Title of the Course: Ecology, Zoogeography and Evolution				
Sem- VI	Credits: 4	Course Code: ZOO601TA	Year/Group: III MZC	HPW: 4
Course Outcomes				Blooms Level
CO1	To understand ecological concepts, structure and dynamics of a community and population.			U & R
CO2	To acquire knowledge about Biodiversity, Biodiversity hotspots in India, Sanctuaries, Endangered species and their conservation.			R, U & E
CO3	To acquire knowledge about the distribution of animals in different regions of Earth, continental drift, discontinuous distribution, evolutionary history of animals and their relationship.			U & Az
CO4	To understand the origin of life, evolutionary theories, natural selection, role of extinction & speciation and different types of isolating mechanisms in nature.			U, E & Az

Title of the Course: Ecology, Zoogeography and Evolution (PRACTICALS)				
Sem- VI	Credits: 1	Course Code: ZOO601PA	Year/Group: III MZC	HPW: 2
Course Outcomes				Blooms Level
CO1	To demonstrate proficiency in measuring key ecological parameters such as soil pH, salinity of water, estimating amount of Carbonates, Bicarbonates and Dissolved Oxygen.			E, Ap
CO2	To be able to identify and map the zoogeographical realm and analyse the geographical distribution of species and understand barriers to species dispersal and historical influence on animals distribution.			U, Az, Ap