

Department of Zoology Course Outcomes

Sl.No.	Semester	Course Code	Course Title	Course Outcomes(COs)
				CO1 Understand the phylogeny of life, connecting link between different phyla and appreciate the diversity of fauna.
				CO2 Explain the general characters of each phylum and their classification and identify animals using different taxonomical strata.
				CO3 Describe the essentials of each body part of animals and their functioning.
				CO4 Knowledgeable on useful and harmful animals like parasites, insects, shell fishes etc using additional OE resources available in the internet using modern ICT tools.
				CO5 Describe conservation of animal and Nature.
			Animal Diversity of Non-chordates- Practical	Become skilful to handle microscopes
				Explain slides and specimens based on observations.
				Document the observation as record work.
				Learn dissection skills through demonstrations.
				Understand the diversity of fauna by visiting a museum.
				Acquaint with different types of fauna and their classification through sample collection.
			Animal Diversity of Chordates	Develop an aesthetic sense to appreciate the richness of fauna and the precision with which each organism functions.
				Understand the difference between various species and the evolution of complexity in each system.
				Explain the general characters and classifications of chordates using additional OE resources available in the internet using modern ICT tools.
				Realize the commercially important animals and their rearing methodologies.
				Describe animal culture, breeding and could create self-employment by establishing different farms.
			Animal Diversity of Chordates Practical	Explain more about the morphological identification of animals based on observation of specimens and slides.
				Skillful on mounting of various animal parts and preservation techniques
				Explore various research area and different instruments involved in research through educational tours.
				Interact with subject experts and expand their knowledge on the scope of Zoology in future career through field trips.
			Cytology, Genetics and Evolution	Understand the variation of species with its basic and functional unit that is cell and its components.
				Explain about the structure and functions of DNA and RNAs.
				Knowledgeable on the process of evolution and the forces operating in it
				Explain the development of speciation and diversification of species using additional OE resources available in the internet using modern ICT tools.
				Understand the role of genes in transmission of parental characters and the disease caused due to its defects.

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			Cytology, Genetics and Evolution -Practical	Ability to prepare slides and staining techniques
				Explain and identify various stages of cell division
				Become skilful to isolate and mount giant chromosomes through practical exposure.
				Explain the evolutionary process and document them based on observation of petrified fossils and moulds.
				Ability to do calculations on Mendel's law and Karyotype alignment of chromosomes and understand the concept of gene and genetic variability.
			Embryology, Physiology and Ecology	Explain the formation and development of egg, sperms, fertilization and growth of each organisms.
				Understand the concept of „Ontogeny repeats Phylogeny“.
				Explain various systems that are working in the body.
				Understand the vitality of each organ, their basic fundamental units and the importance organ donations.
				Discover the interaction that takes place between organisms and their environment using additional OE resources available in the internet using modern ICT tools.
				Realize the importance of interactions between biotic and abiotic factors, their interdependency.
			Embryology, Physiology and Ecology-Practical	Estimate oxygen, alkalinity and salinity present in water through titration methods
				Identify the pH value of water samples collected from different parts of Vijayawada
				Recognize carbohydrates, proteins, fats, and nitrogenous wastes(Ammonia, Urea and Uric acid)
				Understand the developmental stages of various animals through videos, observations of slide, models and charts.
				Aware of the technology involved in cloning.
				Admire the improved quality of species with gene manipulations
				Explain the recent developments in biotechnology for better environment, formation of different species - transgenic animals and production of resistant variety that yield better.
				Describe production of monoclonal antibodies and vaccines and the use of hybridoma technology using additional OE resources available in the internet using modern ICT tools.
				Describe the utilization of stem cells, IVF, transgenic animals and precautions.
			Animal Biotechnology Theory	Aware of the technology involved in cloning.
				Admire the improved quality of species with gene manipulations
				Explain the recent developments in biotechnology for better environment, formation of different species - transgenic animals and production of resistant variety that yield better.
				Describe production of monoclonal antibodies and vaccines and the use of hybridoma technology using additional OE resources available in the internet using modern ICT tools.
				Describe the utilization of stem cells, IVF, transgenic animals and precautions.
				Able to handle different instruments involved in biotechnology
				Prepare culture media, agarose gel and inoculation of microbes into the culture media
				Obtain skills on isolation of DNA and gel documentation techniques

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				Imbibe the spirit of research and motivated for higher education through visits to various firms related to vaccine production.
			Animal Husbandry	Knowledgeable about different varieties of fowls and cattle using additional OE resources available in the internet using modern ICT tools.
				Understand recent technologies that are applied to produce different species with variations which are more beneficial and income fetching.
				Develop own firms, provide employability to others and create awareness about self- help schemes supported by Government and Nongovernmental sectors.
			Animal Husbandry- Practical	Understand various breeds of layers and broilers (photographs)
				Identify disease causing organisms in poultry birds (as per theory)
				Explain the anatomy of a poultry bird by way of dissecting a bird. (Demonstration)
				Understand various activities in a poultry farm (layers and broilers) and write reports.
				Identify various breeds of cattle (photographs/microfilms)
				Explain various activities carried out in a dairy farm and submit a report.
				Understand immune system, improve their immunity, preservation techniques from the attack of pathogens using additional OE resources.
				Identify blood groups, their compatibility and the need to donate blood to save life.
				Recognize the classes, structures and functions of antibodies, antigen – antibody reactions, cure of different diseases through various vaccines, the instruments involved in identification of immune reactions etc.
				Describe self-care and timely precautions against various diseases.
			Animal Husbandry	Knowledgeable about different varieties of fowls and cattle using additional OE resources available in the internet using modern ICT tools.
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