

DEPARTMENT OF ZOOLOGY

Zoology Program Outcomes:

After completing the Programme, Students are benefitted in the following manner-

1. Student gains knowledge and skill in the fundamentals of animal sciences, understands
the complex interactions among various living organisms
2. Analyses complex interactions among the various animals of different phyla, their
distribution and their relationship with the environment.
3. can apply the knowledge of internal structure of cell, its functions in control
of various
metabolic functions of organisms.
4. Understands the complex evolutionary processes and behaviour of animals.
5. Correlates the physiological processes of animals and relationship of organ
systems.
6. Understands environmental conservation processes and its importance,
pollution
control and biodiversity and protection of endangered species.
7. Gains knowledge of Agro based Small Scale industries like sericulture, fish
farming,
vermicompost preparation.
8. Understands about various concepts of genetics and its importance in
human health.
9. Apply the knowledge and understanding of Zoology to one's own life and
work.
10. Develops empathy and love towards the animals.

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Course Outcomes

On the Completion of Course Students gain knowledge about:

Class	Paper Code	Nomenclature of the Paper	Course Outcome
BSC I SEM.	ZOO-101	Life and Diversity from Protozoa to Porifera and Cell Biology-I	<ul style="list-style-type: none">● General taxonomic rules on animal classification● Classification of Protista and Porifera● Pathogenic protozoans and skeleton of Porifera● Structural and functional aspects of basic unit of life i.e. cell● structure and functions of Cell Organelles
	ZOO-102	Life and Diversity from Coelenterata to Helminthes and Cell Biology-II	<ul style="list-style-type: none">● classification of Phylum Coelenterata and Helminthes with taxonomic keys● Details of Obelia● Coral Reefs● Phylum Platyhelminthes, Nematoda and examples of pathogens in Helminthes● structure and functions of all Cell Organelles● Provides basic knowledge about immune system and allows the student to create insight as how to improve their immune system and good health.● Ability to understand concepts of tumor immunology and transplantation immunology● Complement system, MHC's and immune responses● Understanding of types of hypersensitivity reactions and auto immune diseases

BSC II SEM.	ZOO-201	Life and Diversity from Annelida to Arthropoda and Genetics-I	<ul style="list-style-type: none"> ● Classification and details of Phylum Annelida and Arthropoda ● Metameric Segmentation ● True Coelom ● Biodiversity and Economic Importance of Insects ● Mendelian and non mendelian inheritance ● Genetic Interactions ● Sex determination Systems ● Sex linked and Sex influenced Inheritance ● Cytoplasmic Inheritance
	ZOO-202	Life and Diversity from Mollusca to Hemi-Chordata and Genetics-II	<ul style="list-style-type: none"> ● classification of Phylum Mollusca, Echinodermata and Hemi-Chordata ● Concept behind genetic disorders ● gene mutations ● various causes associated with inborn errors of metabolism ● Human Genetics
	ZOO-203	ZOOLOGY PRACTICAL	<p>Practical knowledge of-</p> <ul style="list-style-type: none"> ● cell divisions i.e. Mitosis and Meiosis ● Biodiversity of Invertebrates ● Staining Techniques to study slides
BSC III Sem.	ZOO-301	Life and Diversity of Chordates-I	<ul style="list-style-type: none"> ● Conceptual knowledge of Chordates, their morphology, physiology, adaptations and associations in relation to their environment ● Classification and details of Protochordates to Super class Pisces
	ZOO-302	Mammalian Physiology-I	<ul style="list-style-type: none"> ● The paper imparts thorough knowledge in the fundamentals of biochemistry of all the biomolecules like the carbohydrates, proteins, lipids,

			<p>nucleic acids, their classification and structure.</p> <ul style="list-style-type: none"> ● Interactions and interdependence of physiological and biochemical processes ● Understanding the mechanisms that work to keep the human body alive and functioning
BSC IV Sem.	ZOO-401	Life and Diversity of Chordates-II	<ul style="list-style-type: none"> ● Impart conceptual knowledge of vertebrates, their morphology, physiology, adaptations and associations in relation to their environment ● Classification and details of all Tetrapods ● Evolutionary Trees of Amphibians, Reptiles, Aves and Mammals
	ZOO-402	Mammalian Physiology-II	<ul style="list-style-type: none"> ● Understanding the mechanisms that work to keep the human body alive and functioning ● Physiological and biochemical understanding through scientific enquiry into the nature of ● mechanical, physical, and biochemical functions of human organs, and the cells of which they are composed ● Interactions and interdependence of physiological and biochemical processes
	ZOO-403	ZOOLOGY PRACTICAL	<p>practical knowledge of-</p> <ul style="list-style-type: none"> ● Biodiversity of Vertebrates ● Skeleton of different Vertebrates ● Physiological experiments to know about haemoglobin, Haemin crystals RBCs and WBCs

			<ul style="list-style-type: none"> ● Staining Techniques to study slides
BSC V SEM.	ZOO-501	Environmental Biology	<ul style="list-style-type: none"> ● Distribution of fauna in different realms interaction ● Understand Animal behaviour and response of animals to different instincts Interaction of biotic and abiotic factors ● Various kinds of Animal adaptations ● Types of ecosystem – freshwater, marine and terrestrial ● Population characteristics and dynamics – conceptual approach ● Growth curves and pyramids; sigmoid curve, J curve and hyperbola; logistic equation and ● concepts relating to growth
	ZOO-502	Evolution and Developmental Biology	<ul style="list-style-type: none"> ● Basic concepts of developmental biology ● Embryology of Frog and Chick ● Evidences to prove that Evolution has taken place ● Theories of Evolution ● Knowledge of eras and evolution of species ● Micro, Mega and Macro Evolution
BSC VI SEM.	ZOO-601	Aquaculture and Pest management-I	<ul style="list-style-type: none"> ● Understand concepts of fisheries, fishing tools and site selection. ● Prawn Culture and mollusc culture ● Pearl Culture ● Impart knowledge of beneficial and Harmful insects.
	ZOO-602	Aquaculture and Pest management-I	<ul style="list-style-type: none"> ● understand Aqua culture systems (Happas, ponds and nets)

			<ul style="list-style-type: none"> ● Induced breeding techniques, post harvesting technique ● Insect Pests and their role in destruction of crops and stored grains.
	ZOO-603	ZOOLOGY PRACTICAL	<ul style="list-style-type: none"> ● Techniques to prepare sections of Different types of mammalian Tissues for studying the histological structure of these tissues and also for research purposes ● Ecology experiments to know about chloride contents, Ph and dissolved Oxygen in Water and Soil samples ● Embryology of Frog and Chick