

## B.Sc. Honours in Zoology

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### Programme Specific Outcome

1. Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology.
2. Analyse the relationships among animals with their ecosystems
3. Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology.
4. Understand the applications of Zoology in Agriculture, Medicine and daily life.
5. Gains knowledge about research methodologies, effective communication and skills of problem solving methods . Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for their area of specialization within biology
6. - Contributes the knowledge for Nation building

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Course code	Course Name	Course Outcome
ZOOHCC01	Non-chordates	Develops concepts regarding Classification, Systematics and Taxonomy; Understanding classification and characteristics of Protozoa and Metazoa and Knowledge of classification of Non-chordates along with studies on various physiological functions and interactions of non-chordate organisms with examples.
ZOOHCC02	Ecology	Knowledge of ecological concepts, laws and factors affecting biosphere and enables to gather knowledge about ecosystem function and wildlife conservation and management strategies.
ZOOHCC03	Non-chordates	Students learn about the evolution of structural derivatives of non-chordate features such as metamerism, coelom, torsion, etc.; Various classes of non chordates from Annelids to Echinoderms are studied along with their respective specialized features and Students also learn about lower chordates and their structural relationship with higher forms.
ZOOHCC04	Cell Biology	Students learn about the basic structure of primitive and modern cells and their cell organelles and students also gather knowledge about cell signalling pathways
ZOOHCC05	Chordates	Students learn about the evolution and general characters of primitive and modern day chordates and also gather knowledge about zoogeographical realms and related theories.
ZOOHCC06	Animal Physiology	Students learn about the basic structures of tissues and bones and Study of various systems and their co-ordination.
ZOOHCC07	Fundamentals of Biochemistry	Students learn about the basic structures of biological building blocks, Study enzymes and enzyme –linked pathways and also gather knowledge about various metabolic pathways that controls our body.
ZOOHCC08	Comparative anatomy of vertebrates	Students learn about the various systems in vertebrate physiology and also gather knowledge about comparative accounts of homologous and analogous organs in various vertebrate groups.
ZOOHCC09	Animal Physiology: Life sustaining systems.	Students learn about structural organization and physiology of respiration, digestion and circulation.
ZOOHCC10	Immunology	Knowledge about different techniques used in Cell and Molecular Biology and Basic concepts about animal cell culture and transgenic models.
ZOOHCC11	Molecular Biology	Basic concepts of Cell and Molecular Biology along with various cellular functions; Knowledge about different techniques used in Cell and Molecular Biology.
ZOOHCC12	Genetics	Students develop idea about Mendelian, non-Mendelian inheritance, genetic disorder, gene mutations and sex determination; Gather knowledge on mutations and different types of chromosomal inheritance and also Students are taught techniques in recombinant DNA technology.
ZOOHCC13	Developmental Biology	Description and basic concepts about developmental phases is studied and Imparts the knowledge about developmental processes of different animals along with teratology

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ZOOHCC14	Evolutionary Biology	Description and basic concepts about beginning of life and geological time scale; Imparts the knowledge about heredity and sources of variations in population and This course helps students to gain fundamental species concept and origin and evolution of man.
ZOOHGE01	Biotechnology	Knowledge about different techniques used in Cell and Molecular Biology. Basic concepts about animal cell culture and transgenic models.
ZOOHGE02	Animal Diversity	Knowledge about different groups of chordates and non-chordates and Basic concepts about special features relevant to respective phylum.
ZOOHGE03	Aquatic Biology	Knowledge about aquatic biomes, freshwater and marine biology and Basic concepts about management of aquatic resources.
ZOOHGE04	Insect Vectors and Diseases	Knowledge about insects and their role as vectors and Basic concepts about various insect orders and their features are enlightened.
ZOOHSE01	Apiculture	Study of modern day hive keeping and bee industry and knowledge about bee disease and enemies.
ZOOHSE02	Aquarium fish Keeping	Potential scope of aquarium fish keeping is of biology of aquarium fishes along with Knowledge about maintenance of aquarium.
ZOOHSE03	Medical Diagnostic Techniques	Study of diagnostic methods used for blood and urine; Knowledge about non-infectious and infectious disease and Insight into clinical biochemistry and microbiology.
ZOOHSE04	Sericulture	Study of Potential scope of silkworm culture along with of silkworms biology.
ZOOHDS01	Fish and Fisheries	Students develop idea about morphology and physiology of fishes; Gather knowledge on inland fisheries and its recent status and conservation approaches and along with also gather knowledge on aquaculture and various aspects of fish research.
ZOOHDS02	Animal Biotechnology	Basic concepts of Molecular Biology along with functions of DNA and RNA and study of Genetic Engineering; Students gain knowledge about statistical analysis in biological fields.
ZOOHDS03	Parasitology or Endocrinology	Description and basic concepts about various parasitic forms along with knowledge about hormones and endocrine mechanisms.
ZOOHDS04	Biology of Insects or Wild life Conservation and Management.	Imparts knowledge about basic features and morphology of insects, Students learn about physiology, social behaviour and vector biology of insects or Gains understanding of wildlife, biodiversity and conservation Biology.