

Zoology Course Outcomes

Zoology Program Outcomes:

- Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms.
- Analyze complex interaction among the various animals of different phyla, their distribution and their relationship with the environment.
- Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
- Understands the complex evolutionary processes and behavior of animals.
- Correlates the physiological processes of animals and relationship of organ systems.
- Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species.
- Gain knowledge of small scale industries like sericulture, fish farming, bee keeping, aquaculture, animal husbandry, poultry farm etc.
- Understand about various concepts of genetics and its importance in human health.
- Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties.
- Apply the knowledge and understanding of zoology to one's own life and work.
- Develop empathy and love towards the animals.

Program Specific Outcomes:

- Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, biochemistry, ecology, evolutionary biology, developmental biology and applied and economic zoology.
- Analyze the relationships among animals, plants and microbes.
- Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical Sciences, tools and techniques

of Zoology, Toxicology, Entomology, Sericulture, Biochemistry, Fish biology and Animal biotechnology.

- Understand the applications of biological sciences in Apiculture, Sericulture, Animal Husbandry, Poultry farm.
- Gain knowledge about the effective communication and skills of problem solving methods.
- Contributes the knowledge for Nation building

COURSE OUTCOMES:

- To describe general taxonomic rules on animal classification.
- Classify Phylum Protozoa to Echinodermata with taxonomic keys
- Imparts conceptual knowledge of vertebrates, their adaptations and association in relation to their environment.
- Classify phylum protochordates to Mammalia.
- Complex vertebrate interaction
- Comparative knowledge of integumentary, digestive, circulatory, urinogenital, nervous and skeletal system of various classes of vertebrates.
- Basic concept of developmental biology.
- Concept of hormonal regulation of reproduction.
- Student gain fundamental knowledge of animal physiology.
- Seeks to understand the mechanism that work to keep the animal body alive and functioning.
- Interaction and interdependence of physiological and biochemical processes.
- Students learn detailed concept of digestion, respiration, excretion and the functioning of nerves and muscles, cardiovascular system, endocrine system and reproductive system.
- Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical and biochemical functions of animals, their organs and the cells of which they are composed.
- Student learn the concept of homeostasis.
- Division aspects of basic unit of life.
- Mendelian and non-mendelian inheritance.
- Understanding the basic concept of genetics and laws of inheritance.

- Concept behind genetic disorder, gene mutations- various causes associated with inborn errors of metabolism.
- Theories of evolution and knowledge of evolution of species
- Knowledge about eras and population genetics.
- Understanding of genetic basis of evolution, human karyotyping and speciation.
- Understanding concepts of fisheries, fishing tools and site selection.
- Understands about parasites and epidemiology of parasites in human and animals.
- Use of recombinant DNA technology in genetic manipulation and in a variety of industrial processes.
- Understanding of in vitro culturing of organisms and production of transgenic animals.
- Types of breeds in animal farming and poultry farming along with their management.
- Aquaculture systems, induced breeding techniques and post harvesting techniques.
- Imparts knowledge of non-beneficial insects.
- Interaction of insects vectors with humans and spread of diseases.
- Managements and control of vector and vector born diseases.
- Knowledge about honey bee and bee rearing.
- Knowing beehives, bee keeping equipment, methods of extraction of honey and processing of honey.
- Bee enemies and diseases.
- Bee economy and entrepreneurship in apiculture.
- Gives knowledge of silk worm and mulberry.
- Various process involved in silk production.
- Provides knowledge of ornamental fish breeding which is highly professional and attractive avenue for youth.
- Aquarium fish keeping, aquarium setup and accessories.
- Aquarium fishes, their food and feeding.
- Fish transportation and management.
- Maintenance of aquarium.
- To give knowledge about medical care, nutrition, health and major nutritional deficiency diseases.

- Concept of environmental degradation, issues and health hazards like personal and mental hygiene, addiction etc.
- General concept of communicable diseases, mechanism of pathogenesis and their control measures.
- Life Style Related Non-Communicable Diseases, their causes and prevention through dietary and lifestyle modifications.
- Concept of Mental Health diseases and their management.
- Social health problems like smoking, drug dependence and their addiction.