

Zoology program outcomes, Program specific outcomes and Course outcomes

Program Outcomes

- PO 1.To make the students aware of applications of Zoology subject in various industries
 - PO 2.students for taking up and shaping a successful career in Zoology
 - PO 3.Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species
 - PO 4.Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.
 - PO 5.Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
- Program Specific Outcomes.

Program specific outcomes

- PSO 1. Understand various 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, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology.
- PSO 2. To address the socio-economical challenges related to animal sciences
- PSO 3. Understand the importance of applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine.
- PSO 4. Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology.
- PSO 5. Analyse the relationships among animals, plants and microbes

F.Y. B.Sc.

ZY-101 Term- I: Animal Systematics and Diversity –I

- CO1. Understand the Outline classification of Animals: Classification of animals
- CO2. To make the students aware about conservation and sustainable use of biodiversity.
- CO3. To provide knowledge about various animal sciences from primitive to highly evolved animal groups.
- CO4. Understand the Levels of structural organization.

ZY-102 Fundamentals of Cell Biology

- CO1. Understand the Scope of cell biology, because cell is the basic unit of life.
- CO2. Analyze the relationships among animals, plants and microbes
- CO3. Concept behind genetic disorder, gene mutations
- CO4. Understand the cell cycle and know the importance of various cells in body of organisms.
- CO5. Understand the Animal cells and various cell organelles by using microphotographs

ZY-101 Term- II: Animal Systematics and Diversity – II

- CO1. Students gain knowledge in the fundamentals of animal sciences
- CO2. To provide knowledge about various animal sciences from primitive to highly evolved animal groups
- CO3. To make the students aware about conservation and sustainable use of biodiversity.
- CO4. Understand about the Chordate and Non Chordate animals.

ZY-102 Genetics

- CO1. To understand how nucleic acids transport genetic information
- CO2. Concept behind genetic disorder, gene mutations- various causes associated with inborn errors of metabolism
- CO3. Understands about various concepts of genetics and its importance in human health
- CO4. To understand mutations and its type.

S.Y. B.Sc.

Paper I- ZY-211: Animal Systematics and Diversity – III

- CO1. Understand the principles and methods of taxonomy.
- CO2. Understand Animal behaviour and response of animals to different instincts
- CO3. Student gain Idea about general taxonomic rules on animal classification.
- CO4. To make the students aware about conservation and sustainable use of biodiversity.

Paper II- ZY-212: Applied Zoology – I

- CO1. Imparts depth knowledge about Agricultural Pests and their control
- CO2. Understands concepts of fisheries, fishing tools and site selection
- CO3. Understands the complex evolutionary processes and behavior of animals
- CO4. To study and understand the various species of Bees.

Paper I- ZY-221: Animal Systematics and Diversity – IV

- CO1. Understands concepts of fisheries, fishing tools and site selection
- CO2. Student gain Idea about general taxonomic rules on animal classification.
- CO3. To make the students aware about conservation and sustainable use of biodiversity.

Paper II- ZY-222: Applied Zoology – II

CO1. Gain knowledge of Agro based Small Scale industries like sericulture, fish farming and apiculture etc.

CO2. Awareness about Pests and diseases associated with silk worm and mulberry

CO3. Students gain knowledge about various systems study of silkworms and cocoons, other defective cocoons

CO4. Student gain knowledge about Aqua culture systems, induced breeding techniques, post harvesting techniques

CO5. To aware the students and provides the economic importance of Apiculture.

T.Y. B.Sc

ZY-331: Animal Systematics and Diversity V:

CO1. Gain knowledge about various animal sciences from primitive to highly evolved animal groups.

CO2. Students aware about conservation and sustainable use of biodiversity.

CO3. Understand Correlates the physiological processes of animals and relationship of organ systems

ZY-332: Mammalian Histology:

CO1. Imparts in depth knowledge of tissues, cells

CO2. Students gain skills in histological techniques

CO3. Understand the nature and basic concepts of cell biology

ZY-333: Biological Chemistry

CO1. Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical functions of humans, their organs, and the cells of which they are composed

CO2. Interactions and interdependence of physiological and biochemical processes

CO3. Understand about the agencies responsible for Production of various products using biochemistry.

CO4. Understand the concept Enzymes and also Vitamins and minerals.

ZY-334: Environmental Biology and Toxicology

CO1. Imparts knowledge to the student regarding environment and conservation biology

CO2. Population characteristics and dynamics – conceptual approach

CO3. To increase awareness for the health in students.

CO4. Understand the various disease causing vectors like Mosquitoes.

Co. Understand the Aquatic environment like lotic habitat and Lentic habitat.

ZY-335: Parasitology

CO1. Aware about effect of parasite on health

CO2. Role of Parasite in spread of diseases

CO3. Knowledge of how Parasite interact with their environment

ZY-336: General Pathology or Cell Biology

CO1. Practical skills of conducting basic clinical lab experiments

CO2. Application of knowledge of clinical science and pathology

CO3. Impart depth knowledge of pathology associated with various diseases

CO4. Gives knowledge related to the techniques involved in detection of various diseases

CO5. Understands about composition of blood, blood born diseases, autopsy and biopsy.

ZY-341: Biological Techniques

CO1. Students gain skills in techniques of chromatography, electrophoresis, spectroscopy and radioisotopes

CO2. Understanding Techniques of microscopy, microtomy, biopsy, autopsy and immunological techniques

CO3. Students gain knowledge about various tools & techniques used in biological systems

CO4. Understand the Electrophoresis and Radioactivity technique.

ZY-342: Mammalian Physiology and Endocrinology

CO1. Students gain fundamental knowledge of animal physiology

CO2. Students are taught the detailed concepts of digestion respiration excretion the functioning of nerves and muscles

CO3. Students gain fundamental knowledge of physiology and endocrine systems

CO4. Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical functions of humans, their organs

ZY-343: Genetics and Molecular Biology

CO1. Understands about various concepts of genetics and its importance in human health

CO2. Understanding of basic concepts of genetics, laws of inheritance and central dogma of biology

CO3. Concept behind genetic disorder, gene mutations- various causes associated with inborn errors of metabolism

CO4. Understand the Origin and development of animals

ZY-344: Organic Evolution

CO1. Students can understand and describe fundamental processes of evolutionary change, including genetic drift, natural selection, recombination (especially involving gene duplication), and mutation.

CO2 Students can understand how these processes interact and are modified by extrinsic factors, including mutagens and interactions among species.

CO3 Knowledge of eras and evolution of species

CO4. Understanding of genetic basis of evolution, and speciation

ZY-345: General Embryology

CO1. To increase knowledge and develop personal confidence and leadership ability through embryology project activities.

CO2. To develop youth interest in the science of embryology

CO3. To develop youth interest in the science of embryology.

CO4. To provide learning experiences in incubation, hatching and brooding.

CO5 To provide learning of a life cycle through the beginning stages.

ZY-346: Public Health and Hygiene or Medical Entomology

CO1. Understanding the environmental risk factors involved in the transmission of communicable diseases.

CO2. Understanding of Mammalian sustainable pest and disease management

CO3. Analyse the relationships among animals, plants and other living organism.

CO4.Understanding of Role of infectious agent in spread of diseases