

COURSE OUTCOMES (COs):

Semester- I

Zoology Major

1. Fundamental of Chordates:

Course Outcomes:

CO1: Understand the Morphology and anatomy of Chordate.

CO2: Enable the students to identify the similarities and differences among the animals in different classes of Chordate animals.

CO3: Apply their knowledge to study the functioning of different organs and Systems of chordates.

CO4: Enable the students to identify venomous and non-venomous snakes.

2. Biochemistry:

Course Outcomes:

CO-1: Enable the students to understand the structure, types and classification of proteins, carbohydrates and fats.

CO-2: Enable the students to understand enzymes and enzyme action.

CO-3: Metabolic pathways of various bio-molecules and their functional significance.

CO-4: Enable the students to acquire the skills of biochemical tests and estimations.

Zoology Minor

1. Fundamentals of Non-Chordates:

Course Outcomes:

CO1: Understand structure and functions of Protozoa (Paramecium).

CO2: Analyze the anatomical and physiological systems in Annelida (Earthworm).

CO3: Compare and contrast functional adaptations in diverse invertebrate groups.

CO4: Explore behavioral and structural specializations in minor invertebrates.

CO5: Recognize the medical and economic significance of invertebrates.

2. Biodiversity, Wild life management and Toxicology:

Course Outcomes (COs):

CO1: Understand the Concept and Importance of Biodiversity.

CO2: Demonstrate Knowledge of Wildlife Management Principles.

CO3: Describe Key Features of National Parks and Sanctuaries in India.

CO4: Understand Basic Principles of Toxicology.

CO5: Develop Awareness of Environmental and Wildlife Conservation Challenges.

3. OE - Aquarium Construction and Maintenance:

Course Outcomes (COs):

CO1: Acquire knowledge of ornamental fishes which is highly professional and attractive avenues for youth.

CO2: Enable to acquire skills of aquarium setup and aquarium fish keeping.

CO3: Enable to acquire skills of Fish transportation and management.

4. VSC – I Domestic and Pet Animal Feed Preparation:

Course Outcomes (COs):

CO1: Understand the student the dietary needs of animals.

CO2: Enables the students to design the feed for the animals according to their physiological conditions.

CO3: Acquire the skill of feed preparation of animals.

CO4: To develop entrepreneurship qualities in the field of animal feed production.

5. SEC - Poultry Farming:

Course Outcome (COs):

CO1: To understand different breeds and techniques in poultry farming.

CO2: To acquire the skills of poultry management.

CO3: Students gain confidence to pursue entrepreneurship in farming and assess the economics of a farm.

Semester- IV

Zoology Major

1. Reproductive Biology:

Course Outcome (COs):

CO1: Understand the structure, organization, and functions of male and female reproductive systems in animals.

CO2: Enable to explain the hormonal regulation of reproduction and its role in gametogenesis, ovulation, and spermatogenesis.

CO3: Analyze the mechanisms of reproductive cycles, including estrous and menstrual cycles, and their physiological significance.

CO4: Understand the principles and applications of assisted reproductive technologies (ART) such as IVF, ICSI, and surrogacy.

CO5: Explore the causes and treatments of infertility in males and females, along with emerging diagnostic tools.

CO6: Learn about reproductive health, contraceptive methods, and their societal implications.

2. Applied Entomology:

Course Outcome (COs):

CO1: Acquire the knowledge of non-beneficial insects.

CO2: Understand the interaction of insect vectors with humans and spread of diseases.

CO3: Aware the managements and control of vector and vector borne diseases.

Zoology Minor

1. Physiology, Endocrinology and Histology

Course Outcomes (COs):

CO1: Understand fundamental principles of animal physiology.

- CO2:** Explain the mechanisms of respiration in vertebrates.
- CO3:** Understand circulatory system functions and blood physiology.
- CO4:** Comprehend excretory physiology and osmoregulatory mechanisms.
- CO5:** Identify sources, roles, and deficiency symptoms of vitamins.
- CO6:** Understand the endocrine system and hormonal regulation.
- CO7:** Identify and describe the histological structure of mammalian digestive organs.
- CO8:** Apply knowledge of physiology, endocrinology, and histology to understand health and disease.

2. Economic Zoology and Parasitology:

Course Outcomes (COs):

- CO1:** Describe the economic importance of major fin fishes such as Rohu, Catla, Mrigal, and Tilapia, and explain their role in aquaculture and nutrition.
- CO2:** Identify commercially important shellfishes like lobster, prawn, crab, mussel, and sepia, and explain their significance in the seafood industry.
- CO3:** Illustrate the process of fish farming, including the construction and maintenance of fish farms, and evaluate various fishing crafts and gears used in the industry.
- CO4:** Recognize different breeds of goats, and demonstrate knowledge of their feeding, housing, and economic value in rural and commercial farming systems.
- CO5:** Understand basic principles of dairy science, including the production and processing of milk and various milk products.
- CO6:** Define and classify parasites based on their nature and host interaction.
- CO7:** Describe the morphology, anatomy, life cycle, and reproductive features of *Ascaris*, and understand its pathogenicity and control measures.
- CO8:** Analyze the structural and physiological adaptations of parasites, particularly *Ascaris*, for their survival within the host.

3. OE – Apiculture:

Course Outcomes (COs):

CO1: Understand honey bees life cycle, their social organization, and the importance of different species.

CO2: Acquire skills of handling basic tools, equipment's, and management of beehives.

CO3: To understand the importance and economy of products and by-products of beekeeping.

CO4: To develop entrepreneurial skills for self-employment in beekeeping.

CO5: Acquire the skills for scientific management of honey bee colonies.

4. SEC - Dairy Farming:

Course Outcomes (COs):

CO1: Students gain knowledge of different breeds and their selection in dairy farming.

CO2: Acquire the skills of Dairy farm management.

CO3: Acquire the skills of shed construction and maintenance.

CO4: Students gain self-confidence to become dairy entrepreneurs.

5: OBJECTIVES OF THE PROGRAMME:

- To provide quality education in a branch of Biological sciences i.e. Zoology with different specializations.
- To provide quality education offering skill based programs and motivate the students for self-employment in applied branches of Zoology.
- To conduct field visits for experiential learning.
- To facilitate Higher education & research in zoology.