

Zoology Program Outcomes, Program Specific Outcomes and outcomes Zoology

Program Outcomes:

1. P01 - Students gain Knowledge and skill in the fundamentals of animal sciences understands the complex interactions among various living organisms
2. P02 - Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment.
- 3.P03 - Apply the knowledge of internal structure of cell, its function in control of various metabolic functions of organisms.
- 4.P04 - Understands the complex evolutionary processes and behaviour of animals
- 5.P05 - Correlates the physiological processes of animals and relationship of organ systems
- 6.P06 - Understanding of environmental conservation processes and its importance pollution control and biodiversity and protection of endangered species.
- 7.P07 - Gain knowledge of Agro based Small scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.
- 8.P08 - Understands about various concepts of genetics and its importance in human health.
- 9.P09 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties
- 10.P010 - Apply the Knowledge and understanding of Zoology to one's own life and work.
- 11.P011 - Develops empathy and love towards the animals.

Program Specific Outcomes:

1. PS01. Understand the nature and basic concepts of cell biology, genetics taxonomy, physiology, ecology and applied Zoology
- 2.PS02. Analyse the relationship among animals, plants and microbes
- 3.PS03. 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, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology.
- 4.PS04. Understand the application of biological sciences in Apiculture Aquaculture, Agriculture and Medicine
5. PS05. Gains knowledge about research methodologies, effective Communication and skills of problem solving methods
- 6.PS06. Contributes the knowledge for nation building

Course Outcomes:

Invertebrate - Sub Code - 16SCCZ01, 16SCCZ02

- CO1 Describe general taxonomic rules on animal classification
- CO2 Classify Protista up to phylum using examples from parasitic adaptation
- CO3 Classify Phylum Porifera to Echinodermata with taxonomic keys
- CO4 Describe Phylum Nematoda and give example of pathogenic Nematodes

Environ - Bio - 16SCCZ08

- Co1 Distribution of fauna in different realms interaction
- CO2 Understand Animal behaviour and response of animals to different instincts
- CO3 Interaction of biota
- CO4 Various kinds of Animals adaptations

Chordata - 16SCZ03

- CO1 Impart conceptual knowledge of vertebrates, their adaptation and association in relation to their environment
- CO2 Classify Phylum Protochordates to Mammalia
- CO3 Complex Vertebrate interaction
- CO4 Basis concept of development biology

Cell - Bio 16SCCZ04 - Genetics and Evolution - 16SCCZ06

- CO1 Structural and functional aspects of basic unit of life i.e cell concepts
- CO2 Mendelian and Non Mendelian inheritance
- CO3 Concept behind genetic disorder, gene mutation - various causes associated with inborn errors of metabolism
- CO4 Theories of Evolution
- CO5 Knowledge of origin and evolution of species.

Physiology and biochemistry - 16SCCZ05

- CO1 Seeks to understand the mechanisms that work to keep the human body alive and functioning
- CO2 Physiological and biochemical understanding through scientific enquiry into the nature of mechanical, physical, and biochemical function of human their organs and the cells of which they are composed
- CO3 Interactions and interdependence of physiological and biochemical processes

Entomology - 16MBEZ01:2

- CO1 Imparts knowledge of beneficial and non - beneficial insects
- CO2 Knowledge of how they interact with their environment, other species and human
- CO3 classification of Insects
- CO4 Role of insects in spread of diseases

Sericulture - P16Z0E5A

- CO1 Gives knowledge of silk worm rearing
- CO2 Mulberry cultivation
- CO3 Pests and diseases associated with silk worm and mulberry
- CO4 Various processes involved in silk production

Immunology - P16Z042

- CO1 Imparts in depth knowledge of tissues, cell and molecules involved in host defense mechanisms
- CO2 Understanding of immunity
- CO3 Interaction of antigens, antibodies, complements and immune components

Animal taxonomy, phylogeny and biodiversity - P16Z011

- CO1 Imparts knowledge regarding the various Invertebrates species and the regulatory processes to safeguard them
- CO2 With the study of this paper students gain knowledge in the areas of responses to Systematic position, general organization and affinities of Ctenophora and Nemertea
- CO3 Rhynchozoa, Systematic position, General organization and affinities of Rotifer
- CO4 Systematic position, general organization and affinities of Hemichordata

Biostatistics and computer Applications - P16Z032

- CO1 Students gain knowledge about various tools & techniques used in biological system and gives them insights about their insights use in research
- CO2 Biostatistics teaches them to use the best analysis method in their research tendencies, probability

Animal physiology - P16Z021

- CO1 Imparts knowledge about various metabolic and physiological mechanisms of the human body
- CO2 Understands about neurophysiology and receptors
- CO3 Gain knowledge about Hormones and bioluminescence
- CO2 Understanding of stress physiology and endocrine mechanisms will allow them to control their stress and emotions by diverting towards the positive nation building activities

Fish Biology (FB) - P16Z0E4A

CO1 Course Provides them comprehensive understanding about aquatic ecosystem and various economic important fishes.

CO2 Students gain knowledge in the areas of responses characterization and classification of Ostracoderms, placoderms, acanthodians, holocephalic, elasmobranchs.

CO3 Students gain knowledge of integumentary system - basic structure of skin, dermal and epidermal pigments, fins and scales.

CO4 Understanding of embryogenesis - Early development and post embryonic development.

CO5 Understanding of fishes habits and habitats and their functional anatomy.

CO6 The students will be well equipped to become very competent in research or teaching fields.

CO7 It is one of the small scale industry which can provide the student employment opportunity.

Instrumentation and Computer Application in Biology

CO1 Understanding of basic concepts of instrumentation such as cell fractionation, homogenation and centrifugation.

CO2 Students gain skills in techniques of chromatography, electrophoresis, spectroscopy and radio isotopes.

CO3 Students gain skills in histological immunological and electrophysiological techniques.

CO4 Students gain skills basics of computers, operating systems, overview of programming languages.