

SVRK GOVERNMENT DEGREE COLLEGE

NIDADAVOLE, WG Dt.

ZOOLOGY COURSE OUTCOMES

The study of Zoology has the following outcomes:

ZOOLOGY – SEMESTER I

PAPER – I: ANIMAL DIVERSITY – BIOLOGY OF NONCHORDATES

Course Outcomes: By the completion of the course the graduate is able to –

CO1 Describe general taxonomic rules on animal classification

CO2 Classify Protozoa to Coelenterata with taxonomic keys

CO3 Classify Phylum Platyhelminthes to Annelida phylum using examples from parasitic adaptation and vermin composting

CO4 Describe Phylum Arthropoda to Mollusca using examples and importance of insects and Molluscs

CO5 Describe Echinodermata to Hemichordata with suitable examples and larval stages in relation to the phylogeny

CO6 Describe various systems and their function in animals that belong to non chordates

ZOOLOGY – SEMESTER II

PAPER – II: ANIMAL DIVERSITY – CHORDATES

Course Outcomes:

By the completion of the course the graduate should be able to -

CO1 Describe general taxonomic rules on animal classification of chordates

CO2 Classify Protochordata to Mammalia with taxonomic keys

CO3 Understand Mammals with specific structural adaptations

CO4 Understand the significance of dentition and evolutionary significance

CO5 Understand the origin and evolutionary relationship of different phyla from Protochordata to mammalia.

ZOOLOGY – SEMESTER III

PAPER – III: CELL BIOLOGY, GENETICS, AND EVOLUTION

This course will provide students with a deep knowledge in Cell Biology, Genetics and Evolution and by the completion of the course the graduate shall be able to –

CO1 To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure.

CO2 Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.

CO3 To understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals

CO4 Acquiring in-depth knowledge on various aspects of genetics involved in sex determination, human karyotyping and mutations of chromosomes resulting in various disorders

CO5 Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins.

CO6 Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals for the benefit of the society

ZOOLOGY – SEMESTER IV

Paper – Iv: Embryology Physiology, and Ecology

Course Outcomes:

This course will provide students with a deep knowledge in Embryology Physiology, and Ecology and by the completion of the course the graduate shall be able to –

CO1 Understand the functions of important animal physiological systems including digestion, cardio-respiratory and renal systems.

CO2 Understand the muscular system and the neuro-endocrine regulation of animal growth, development and metabolism with a special knowledge of hormonal control of human reproduction.

CO3 Describe the structure, classification and chemistry of biomolecules and enzymes responsible for sustenance of life in living organisms

CO4 Develop broad understanding about the basic principles of Ecology

CO5 Describe the key events in early embryonic development starting from the formation of gametes upto gastrulation and formation of primary germ layers.

ZOOLOGY – SEMESTER V

Paper – V: ANIMAL BIOTECHNOLOGY

Course Outcomes:

CO1 Understand the the tools of Recombinant DNA technology.

CO2 Understand the basics of PCR, DNA sequencing

CO3 Describes reproductive technologies and Transgenic animals

CO4 Develop broadunderstanding about the process and applications of fermentation

CO5 Understands the applications of Biotechnology.

ZOOLOGY – SEMESTER V

Paper – VI: ANIMALHUSBANDRY

Course Outcomes:

CO1 Understand the principles of Poultryfarming and management of chicks

CO2 Understand the basics of poultry feed management

CO3 Describes various Bacterial and Viral diseases of poultry

CO4 Developes clear knowledge of Breeds of diary cattle and buffaloes

CO5 Gains knowledge of care and management of diary animals.

ZOOLOGY – SEMESTER VI

Paper – VII: IMMUNOLOGY

CO1 Understand the types of Immunity and various types of cells and organs that participate in immunological reactions.

CO2 Understand basic properties of antigens and factors influencing immunogenecity.

CO3 Describe the structure, classification and and functions of antibodies

CO4 Develop broadunderstanding about MHCs and properties of cytokines

CO5 understand types of vacciens and vaccination.

ZOOLOGY – SEMESTER VI

Cluster Elective Paper – VIII

Aquaculture

The main objective to introduce Aquaculture technology as job or market oriented course is to impart knowledge and skills for empowering the existing undergraduate B.Sc. programs and to make them ready for jobs through involvement of industry from the beginning.

COURSE OUTCOMES

- CO1: Learn about the concept of Blue Revolution, types of aquaculture systems and scope of Aquaculture at Global, India and Andhra Level.
- CO2: Understand the concepts of Ecology, and nutrient cycles in culture ponds.
- CO3: Acquire knowledge of different types of ponds and their functional classification.
- CO4: Understand the Important factors involved in construction of ideal fish pond.

- CO5: Understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans, Molluscs and Fish.
- CO6: Gain Knowledge of feeding habits, gut content analysis and growth factors in fishes.
- CO7: Understand and learn breeding in fishes, breeding habits, method of induced breeding in fishes.
- CO8: Understand Nutritional requirements of cultivable fishes and factors affecting energy partitioning and feeding.
- CO9: Know different types of feed and FCR and different types of feeders.
- CO10: Gain Knowledge of Feed manufacture and storage methods of feeds.
- CO11: Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India and AP.
- CO12: Learn about Major Cultivable Indian Carps and Exotic fish Species introduced in India.
- CO13: Know about recent developments in the culture of clarius, anabas and murels and special systems of aquaculture.
- CO14: Gain knowledge of commercially valuable Fresh water prawns of India and their culturing methods.

CO15: Learn about culturing of brackish water Prawn Species *P.mondon* and *L.vannamei* and hatchery technology's involved.

CO16: To provide students with knowledge about fish diseases and pathological aspects of diseases.

CO17: Learn about Fungal, Viral and Bacterial diseases of finfish.

CO18: Gain the Knowledge of basic concepts of economics with reference to fisheries and various factors influencing the fishery products price.
