



S.C. GOVA CORNIA NIDVAI

NANDYAL



DEPARTMENT OF ZOOLOGY CO-PO MAPPING





PROGRAMME SPECIFIC OUTCOMES (PSOs)

The Department of Zoology, KSN Government Degree College for Women, Anantapur, offers Three Year (comprising 6 semesters) Undergraduate Programme in Zoology with objective of empowering students to acquire all-inclusive understanding of Zoology as an academic discipline. Upon completion of B. Sc. Zoology Degree Programme successfully, the students shall acquire the following skills and competencies.

| PSO1 | Understand the importance of plants, their diversity and its conservation |
|-------|--|
| PSO2 | Achieve knowledge of pure and applied botany. Students acquire fundamental Botanical knowledge through theory and practical's. |
| PSO3 | Understand good laboratory practices and safety. Understand experiments in zoology |
| PSO4 | Understand health and environmental protection and to solve the pollution problems. |
| PSO 5 | To create awareness about cultivation, conservation and sustainable utilization of biodiversity |

PSO-PO MAPPING

| | | | | | | POs | | | | | |
|------|----|---|---|---|---|-----|---|---|---|---|----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | 1 | * | | * | * | | * | * | | | * |
| | 2 | | * | | | * | * | * | * | * | |
| | 3 | * | * | | * | * | | | | * | * |
| | 4 | | * | * | * | | * | * | | | |
| PSOs | 5 | * | * | * | | | * | | | * | * |
| | 6 | | | | * | * | * | | * | * | |
| | 7 | * | | | * | * | | * | | * | * |
| | 8 | | * | * | | | * | | * | * | |
| | 9 | * | | * | | | * | | * | * | |
| | 10 | * | | * | | * | * | * | | * | * |

COURSE OUTCOMES (COs)

Course Code: 51-321

Course Name: Biology of Non Chordates

| pon co | ompletion of this course, the student will be able to: | PO |
|--------|---|-------|
| CO 1 | Get a concrete idea of the evolution, hierarchy and classification of invertebrate Phyla | 1.3.5 |
| CO 2 | Getting an overview of typical examples in each invertebrate major phyla | 1,5 |
| CO 3 | Demonstrate anatomical and physiological attributes of each animal group and why these have led to their success. | 1,2,5 |
| CO 4 | Identify various larval stages and development in invertebrate groups | 2,5 |
| CO 5 | State the outline of animal classification of non-chordates | 2,6 |
| CO6 | Categorize the diversity found in the invertebrate groups of animals like Arthropoda, Mollusca and Echinodermata. | 1,2,6 |

Course Code: 53 - 321

Course Name: Cell Biology, Genetics and Evolution

| pon co | ompletion of this course, the student will be able to: | PO |
|--------|---|-------|
| CO 1 | Explain general characteristics and classification of different classes of vertebrates | 1,5 |
| CO 2 | Describe the morphology, habit and habitat. Systematic position and various systems in the chordate animals | 1,2,3 |
| CO 3 | List the various vertebrate animals in a given class. | 1,5 |
| CO 4 | Identify poisonous and non-poisonous snakes. | 1,2 |
| CO 5 | Explain various adaptations in avian group as well as migration and flight in birds | 1,2,5 |
| CO 6 | Categorize the diversity found in the vertebrate groups of animals like reptiles, birds and mammals. | 1,5 |

Course Code: \$3 - 321

Course Name: Cell Biology, Genetics and Evolution

| pon co | ompletion of this course, the student will be able to: | PO |
|--------|---|---------|
| CO 1 | Differentiate between prokaryotes and eukaryotes | 2,5 |
| CO 2 | Explain the structure and functions of the nucleus, different cell organells. | 3,5 |
| CO 3 | Explain Mendel's principle, its extension and chromosomal basis and determination of gene action from genotype to phenotype and concepts of inheritance | 1,2,3,5 |
| CO 4 | Describe the chromosome anomalies and associated diseases | 2,5,6 |
| CO 5 | Describe the concept of origin of life and theories of origin of life | 1,2,3 |
| CO 6 | Explain the theories of organic evolution. | 1,3,5 |

Course Code: 54 - 321

Course Name: Embryology Physiology and Ecology

| pon co | ompletion of this course, the student will be able to: | PO |
|--------|---|-------|
| CO 1 | Describe the key events in early and systematic embryological development | 2,5 |
| CO 2 | Explain the principles and process of fertilization and cleavage | 1,5 |
| CO 3 | Imparts knowledge about various metabolic and physiological mechanisms of the human body. | 1,2,6 |
| CO 4 | Understand the function of various systems | 2,5 |
| CO 5 | Describe the nature of ecosystem, productivity, food webs, energy flow | 1,3,4 |
| CO 6 | Understand animal interactions with the environment | 1,3,6 |
| CO 7 | Compare animal distribution in different zoogeographical realms. | 2,3,5 |

Course Code: \$5 - 321

Course Name: Animal Biotechnology

| pon co | ompletion of this course, the student will be able to: | PO |
|--------|---|-------|
| CO 1 | Aquire the knowledge of tools used in Recombinant DNA Technology | 2,5,6 |
| CO 2 | Familiar with the techniques Biotechnology such as PCR, Hybridization, different gene delivery techniques | 1,2,3 |
| CO 3 | Knowledge of animal cells in culture, growth of cell lines | 1,5 |
| CO 4 | Imparts the Knowledge to culture animal cells in artificial media. | 2,5 |
| CO 5 | Illustrate the applications of Biotechnology in various fields | 3,4,6 |
| CO 6 | Use of Biotechnology in variety of industrial processes. | 5,6 |

Course Code: 55 - 322

Course Name: Animal Husbandry

| pon c | ompletion of this course, the student will be able to: | PO |
|-------|--|-------|
| CO 1 | Understand the principles of Poultry housing and feed management in different stages of Birds | 1,5,6 |
| CO 2 | understand the role of nutrition in milk production and egg production | 3,5 |
| CO 3 | Illustrate Different Breeds of Dairy animals and buffaloes | 2,5 |
| CO 4 | Illustrate Different Breeds of Dairy animals and buffaloes | 5,6 |
| CO 5 | understand how the application of modern animal production technologies and management practices impact their production | 2,6 |

Course Code: S6 - 321 Course Name: Immunology

| on co | impletion of this course, the student will be able to: | PO |
|-------|---|-------|
| CO 1 | Provides basics knowledge about immune system and allows the student to create insight as how to improve their immune system and good health. | 3,5 |
| CO 2 | Interactions of antigens, antibodies, complements and other immune components | 1,5 |
| CO 3 | Distinguish Innate immunity and Acquired Immunity | 2,5 |
| CO 4 | Explain the concepts of immunity, hyper sensitivity, self-nonself immune response, autoimmune diseases | 3,5 |
| CO 5 | Explain the principle and application of the common techniques used in Immunology | 1,5,6 |
| CO 6 | Understanding of immune mechanisms in disease control, vaccination, process of immune interactions | 3,6 |

Course Code: S6-322

Course Name: Principles of Aquaculture

| on co | empletion of this course, the student will be able to: | PO |
|-------|---|-------|
| CO 1 | Course provides them comprehensive understanding about aquatic ecosystem and various economical important fishes. | 3,5 |
| CO 2 | Enlist the diagnostic features of shrimps and fishes | 2,5 |
| CO 3 | Gain the knowledge of Different types of Aquaculture systems and Culture Practices | 3,6 |
| CO 4 | Explain the criteria for selection of site for construction and design of Aqua farms | 2,6 |
| CO 5 | Describe the methods of freshwater prawn culture, Carp culture and its management | 3,5 |
| CO 6 | Illustrate the various composite fish culture with significance of each type. | 2,5,6 |
| CO 7 | Explain the methods of pearl culture and pearl harvesting | 2.5 |

Course Code: 56 - 323

Course Name: Aquaculture Management

| oon co | empletion of this course, the student will be able to: | PO |
|--------|---|-------|
| CO 1 | Learn the basic principles involved in the culture and breeding of common edible fishes | 1,5 |
| CO 2 | Explain the process of Hatchery Manangement | 3,6 |
| CO 3 | Acquire the knowledge of Water quality parameters and soil characteristics suitable for shrimp and fish culture | 2,3,6 |
| CO 4 | Understand the principles of disease diagnosis and health management | 1,3 |
| CO 5 | Identify the fish diseases and the causative organisms. | 2,3,5 |
| CO 6 | Explain the different types of Feed Strategies and feed Management | 2,6 |
| CO 7 | Gain the knowledge of Economics and Marketing Principles of Aquaculture | 1,3,6 |

Course Code: 56 - 324

Course Name: Post Harvest Technology

| oon co | ompletion of this course, the student will be able to: | PO |
|--------|---|-------|
| CO 1 | Learn the Basic principles of preservation of fish | 1,5 |
| CO 2 | Demonstrate the methods of packaging and transport of fish and shrimp | 2,6 |
| CO 3 | Illustrate techniques of fish harvesting, preservation & processing | 1,6 |
| CO 4 | Gain the knowledge of the fish products and Byproducts | 2,5 |
| CO 5 | Compare the techniques used in fishery development. | 2,6 |
| CO 6 | Understand the importance of Sanitaion, Quality management in processing Plants | 2,3,4 |