

DEPARTMENT OF ZOOLOGY

COURSE OUTCOME

Core I:

Core I include Non chordates are the most abundant and diversified of all animals living and extinct. Non chordates are animals without notochord. Members of Phylum, Protozoa, Porifera, Coelenterata, Ctenophora, platyhelminthes, nemathelminthes. From this core the students get an idea of basic animal classification. They learn about characteristics, the life cycle of various disease causing animals like plasmodium vivax that causes malaria, Entamoeba histolytica that causes Amoebiasis. Certain helminthes such as the fasciola hepatica, Taenia solium, Ascaris lumbricoides, Wucheria bancrofti act as pathogens causing disease to various animals. So studying about these helminthes pathogenecity and prophylaxis gives a clear picture of how it can be transmitted, how it multiplies and cause disease.

Core II:

Students learn about various types of ecosystems like- natural, artificial, land water ecosystem. How these ecosystems are affected by physical factors like light and temperature, why certain animals respond differently to different physical factors is also know from these chapters. They learn about how energy is being transferred from one tropic level to other. Students get to understand about various biogeochemical cycles and succession. They understand how pioneer species gradually give rise to climax community.

Core III:

This core includes the coelomate Nonchordates i.e. Annelida, Anthropoda, Onychophora, Mollusca and Echinodermata. Here students learn about the origin of coelom, metamerism in annelid and the classification of these coelomate Non-chordates. They know about physiological processes also.

Core IV:

This core includes digestive, respiratory excretory and circulatory system. These units makes a student understand about the physiology. It gives us idea about the structure and functions of various physiological processes occurring inside our body. Students learn about the structure of heart, blood circulation, cardiac output and how blood pressure is being regulated.

Core V:

In this core students get to know about how the chordates originated. Chordates include Pisces, Amphibians, Reptilia, Aves and Mammals. Student learns about types of animals, structure of scales, Migration and parental care of fishes. They also learn about various mammalian orders and how these animals are distributed under various geographical realms.

Core VI:

This includes the controlling and coordinating system. Students get to know about various types of muscles, tissues, neurons and also about the reproductive and endocrine system. They learn about bone formation (ossification) types of glands and their function.

Core VII:

This core includes the comparative anatomy of vertebrates. From this the students understand how the anatomy of various class of organisms are different.

Core VIII:

This core includes biochemistry of metabolic processes. Structure and function of various bio-molecules like carbohydrates, fatty acids, amino acids and proteins can be learnt from this topic. These molecules are the building blocks of our body.

Core IX:

This core covers cell biology. This includes the study about the cell organelles present inside the cells, the plasma membrane, the cell cycle and Apoptosis and cancer.

Core X:

This core includes Genetics. Student learns about the principles of inheritance and the exceptions to Mendelian genetics. Study about mutations help to know the reason behind abnormality or any defects. They study about the types of mutation and their detection methods.

Core XI:

This core includes developmental biology. Here the students learn about how the cells take up definite roles. They learn about the mechanism behind a single cell zygote becoming a multi cellular adult. A student also gains knowledge about teratogens and their effect on embryo and various techniques, like IVF, stem cell culture and Amniocentesis. They also know about Ageing.

Core XII:

This core includes molecular Biology. From this students learn about the structural arrangement of DNA. How DNA is being replicated in prokaryotes and Eukaryotes is understood. They also learn about the post translational modification like splicing, coping and tailing. They get brief idea about the operon concept, gene silencing, imprinting and interference concept.

Core XIII:

This core includes the study of Immune system students get knowledge about immunity. They also get information about the allergy reactions, cytokines and vaccines. Vaccines are useful to prevent disease.

Core XIV:

This core includes evolutionary biology students get to know about how life originated and how we human beings evolved.

DSE-I:

This core gives the students understanding about animal behavior. And also various types of behavior, stimulation and instincts.

DSE –II:

It includes economic zoology. Students gain knowledge about sericulture, apiculture, aquaculture, dairy and poultry farming. They know about types of silks, their production and diseases of honey bee and silk worm.

DSE-III:

This includes microbiology from this students learn about microbes, their characters and classification. It includes Bacteria, virus, protista, fungi. Students learn about these microbe structure and characters. They get to know about the viral replication and certain important microbial diseases along with their pathogen, transmission and preventives. Students also gain understanding about antibiotics and chemotherapeutic agents. They also learn about the role of microbes in food, agriculture, industry and environment.

DSE-IV:

Project work helps in various ways. Types of animal study get the idea of diversity of animal in Economic Zoology study of honey bee, silk warm and fish are the topic which student gain knowledge about it.