Department of Zoology

M.A

Programme specific outcome

The student at the completion of the course will be able to:

• demonstrate comprehensive identification abilities of non-chordate diversity

• describe structural and functional diversity of non-chordate

• explain evolutionary relationship amongst non-chordate groups

• understand various functional components of an organism body

• analyse the complexities and interconnectedness of the functional components

• identify the mechanism underlying maintenance of homeostasis of the body

• infer the regulatory mechanisms for maintenance of function in the body

*The course will lay down the foundation of biochemistry among students where they will develop a deep understanding of structure of biomolecules like proteins, lipids and carbohydrates and how simple molecules together form complex macromolecules.

*They will be able to understand the thermodynamics of enzyme catalyzed reactions and mechanisms of energy production at cellular and molecular levels. In addition, the application of

Biochemistry in understanding disease and medicine will be apprised.

*Appreciate biodiversity, its threats and conservation.

• Identify common biodiversity in their courtyard.

• Comprehend and communicate details of various Government Bodies & Policies related to biodiversity.

*demonstrate comprehensive identification abilities of chordate diversity

• explain structural and functional diversity of chordate

• explain evolutionary relationship amongst chordatea variety of interacting processes, which generate an organism’s heterogeneous shapes, size, and structural features,

• how a cell behaves in response to an autonomous determinant or an external signal, and

• the scientific reasoning exhibited in experimental life science.

• an in depth understanding about Immune System & it's elaborate mechanisms.

• state of art information about recent trends in Immune therapy in case of several diseases like

cancer, hepatitis etc.

• make students aware of and appreciate the animal diversity at different levels (behavioural,

physiological, biochemical and molecular levels etc.)

• develop a comprehensive understanding of the field through an array of classes (lectures,

tutorials, demonstration, group discussion, assignments etc.)

• cope up with the challenges arising out of the complexities and limitations of biological system.

• help the students to give a holistic view of subject and prepare them for next level of learning.

• Help students to understand life-environment interaction.

• Help them in understanding the intricacies of the subject at advanced level and develop the

skills to opt for research programs.

• Help students to explore newer areas such as conservation and management of animal

kingdom.

• Zoological knowledge and theories are applicable to maintain health and to control the

epidemic diseases.

• Students can venture into the industry e.g. various animals such as coral, pearl, honey, wax,

silk, lac, shell of turtle, bones, feather, tusk, leather and fur are of high demand.

• equip them to disseminate the knowledge at different levels of education.

*solve the biological problems during data analysis using various statistical methods such as

uni-variate analysis, bi variate analysis, correlation, regression and various tests of significance.

• learn the working of various equipments which will be useful in the final semester for their

experimental work.

*Understanding and identify behaviours in a variety of taxa

• discussing the proximate and ultimate causes of various behaviours

• designing and implementing experiments to test hypotheses relating to animal behaviour

• understanding about the molecules, cells, and systems of biological timing systems

• conceptualizing how species profitably inhabit in the temporal environment and space out their

activities at different times of the day and seasons.

*studying and analysing the scientific literature

• planning studies on biological rhythms in both human and non-human species

• interpreting the cause and effect of lifestyle disorders

• contributing to public understanding of biological timing

*basic concepts of biosystematics, evolutionary biology and biodiversity which will enable the

students not only to understand the subjects but also to solve the biological problems related to

the environment, and

• principles of taxonomy for identification, classification and naming the organisms scientifically.

• origin and modification of various life forms during various time scales.

*To develop an understanding of the basic endocrinology

• To study the endocrine regulatory molecules mediating physiology and behavior

• To study the neural and endocrine components of physiological function and neuroendocrine

regulation

• To understand the role of hormones in metabolic regulation and maintaining homeostasis

• To understand the integrative working of signaling system

*the basic concepts of fish biology and genetic resources

• utilize the knowledge in fish biology researches,

• manage the fish under controlled conditions, and

• understand the status of fish biogenetic resources of India