

# FYUGP 2024

## Semester I

### MAJOR 1: Biology of Non-Chordates

#### **Course Objectives:**

The course Biology of Non-Chordates designed to know the diversity of non-chordates in the world and to understand the underlying principles of classification of non-chordates. Students will learn to classify invertebrates and to be able to understand the morphological, adaptive and anatomical features of diverse non-chordate groups, their economic and ecological significance and their relationships. The course will create general interest among students about the life of animals without backbone in order to explore and appreciate the diversity of non-chordates in nature and to understand our role as caretaker of life.

#### **Course Outcome:**

By studying this course, students will be able to;

- ❖ Understand, classify and identify the diversity of non-chordates.
- ❖ Acquire knowledge of systematic position, habitat and structural organization of non-chordates.
- ❖ Critically analyse the organization, complexity and characteristic features of non-chordates.
- ❖ Understand the economic importance of non-chordates, their interaction with the environment, role in the ecosystem, evolutionary history and their relationships.
- ❖ Appreciate the diversity of non-chordates living in varied habitats.
- ❖ Enhance collaborative learning and communication skills through practical sessions, group discussions, assignments and projects.

## **MAJOR 2 : Ecology**

### **Course Objectives:**

Ecology is the study of organisms, the environment, and the interactions between the organisms and their surroundings. Numerous levels, including organism, population, community, biosphere, and ecosystem are researched. Understanding the distribution of biotic and abiotic elements, as well as how they interact and relate to one another and the environment, is the major goal of ecology. It also looks at how living things may use the environment and its resources effectively today so that future generations can benefit from them as well. The preservation of clean air and water, the production of food, and the maintenance of biodiversity in a changing climate all depend on it. It is crucial for resource allocation, environmental conservation, and pollution reduction.

### **Course outcome:**

This course offers students

- ❖ The knowledge to conserve and protect nature and prevent the extinction of species,
- ❖ An idea how all species fit together, what are their habitat requirements, how they influence each other, and what population size ensures their survival, etc.
- ❖ The awareness about environmental problems
- ❖ Imparting basic knowledge about the environment and its allied problems.
- ❖ Developing an attitude of concern for the environment.

## **MINOR 1: Animal Diversity**

### **Course Objectives:**

This minor course will help to learn the distinctiveness of the different animal phyla/classes. Allow the students to learn the diagnostic characters of different phyla/class through brief studies of examples. Finally, it will help to understand the evolutionary tree.

### **Course outcome:**

Students are expected to;

- ❖ Gain the basic knowledge on the animal diversity.
- ❖ Gain the knowledge on animal classification.
- ❖ Know the general characteristics, lifecycle pattern of representative animals of some of the non-chordate and chordate animals.
- ❖ Acquire special adaptive feature of some phyla/classes.