

# **SUBJECT: BOTANY**

Botany is a broad discipline with numerous subjects involved with the study of Plants and microbes. The learning outcome can be summarized under following points:

## **B.Sc. Semester 1**

1. The students will gain wide knowledge on the diversity, morphology and reproduction of plants and microbes.
2. The students shall get to know about the diversity that exists in plants right from Algae to Fungi to Bryophytes, Pteridophytes. They shall be able to appreciate their habit, habitat morphology anatomy and reproduction in these groups of plants.

## **B.Sc. Semester 2**

1. The students shall get an insight into the origin; evolution of two most advanced groups of plants like Gymnosperms and Angiosperms and shall learn the basis for their separate grouping.
2. The students shall have an understanding of the classification systematics of plants and the semi technical taxonomic descriptions of some common angiosperm families.

## **B.Sc. Semester 3**

1. The students shall understand the anatomy and embryology of Angiosperms in detail in theory and in Practicals with hands on training in section cutting and shall learn to observe the microscopic structural details of the cells ,tissues and organs and shall be able to relate these to the functions being performed.
2. The students shall also get an insight into the field of Ecology and the relationship between biotic and abiotic components of the environment that will sensitize the young minds to appreciate the concept of ecological balance and sustainable development.

#### **B.Sc. Semester 4**

1. The students shall learn the physiology and metabolism of plants through theoretical and practical demonstrations and shall get to know about the underlying principles that are responsible for various physiological functions of plants such as water and mineral uptake, transpiration, cell permeability respiration, photosynthesis, nitrogen and fat metabolism, growth regulation etc.

#### **B.Sc. Semester 5**

1. The study of Genetics and Cell biology will create understanding of the structure and functions of the cell and its organelles which will form a basis for higher studies in these and other related modern fields of studies.

#### **B.Sc. Semester 6**

1. The study of economic importance of different plants groups will help students to understand the dependence of man on plants right from food to shelter to medicines.
2. The students shall learn and understand the basic techniques of plant tissue culture and biotechnology
3. The use of microbes and plants in the field of Biotechnology will create an understanding of the modern fields of research in Botany and help them to understand the role and importance of research in Botany for the welfare of mankind