

कै. अंबूमाता लोमटे शिक्षण संस्था संचालित,

## संतराम लोमटे वरिष्ठ महा विद्यालय, सलगरा (दि.)

ता. तुळजापूर जि. धारा शिव.

अध्यक्ष -

श्री. उत्तमराव संतराम लोमटे

मो. 9834920098

Email : [santramlomatesc@gmail.com](mailto:santramlomatesc@gmail.com)

प्राचार्य

डॉ. डी. एम. शंदे

M.A. Entire Sociology Ph.D

मो 9422377740

### Course Outcomes **Department of Botany**

#### **B.Sc. I Year (Semester-I)**

##### **Diversity of Cryptogams –I (BOT – 111)**

- **CO1:** Understand the general characters, classification, and economic importance of Viruses.
- **CO2:** Study the general character, classification, and economic importance of Bacteria.
- **CO3:** Study the general characters, classification, and economic importance of Algae.
- **CO4:** Know the general characters, classification, and economic importance of Fungi.
- **CO5:** Study the general characters, classification, and economic importance of Lichens.

##### **Morphology of Angiosperms (BOT – 112)**

- **CO1:** Know the basic body plan of flowering plants, modular type of growth, and diversity of plant forms.
- **CO2:** Study the morphology of vegetative organs: root, stem, and leaf.
- **CO3:** Study the morphology of reproductive organs: Inflorescence, Flower, Fruit, and seed dispersal.
- **CO4:** Develop ability among students to identify, remember, and grasp the meanings and definitions of Angiosperms.
- **CO5:** Study the general characters of Angiosperms.

#### **B.Sc. I Year (Semester-II)**

##### **Diversity of Cryptogams –II (BOT – 211)**

- **CO1:** Study general characters and classification of Bryophytes.
- **CO2:** Study of Marchantia and Funaria.
- **CO3:** Study general character and classification of Pteridophytes.
- **CO4:** Study Psilotum, Lycopodium, Selaginella, Equisetum, and Marsilea.

##### **Histology, Anatomy, and Embryology (BOT – 212)**

- **CO1:** Study types of tissue (meristematic, permanent, epidermal) and histological organization of root and stem apices.
- **CO2:** Understand the primary structure of dicot and monocot root, stem, and leaf.
- **CO3:** Study the pollination mechanism, types, and agencies.
- **CO4:** Study double fertilization and its significance.
- **CO5:** Study development of dicot embryo.

## **B.Sc. II Year (Semester-III)**

### **Taxonomy of Angiosperms (BOT – 311)**

- **CO1:** Study the salient features, origin, and evolution of Angiosperms.
- **CO2:** Study systems of classification.
- **CO3:** Study Bentham and Hooker's system of classification.
- **CO4:** Study taxonomy in relation to anatomy, embryology, palynology, ecology, and cytology.

### **Plant Physiology (BOT – 312)**

- **CO1:** Study the plant water relations: Diffusion, osmosis, plasmolysis, imbibition, water absorption, ascent of sap, and transpiration.
- **CO2:** Study mineral nutrition.
- **CO3:** Understand enzymes.
- **CO4:** Study growth.
- **CO5:** Understand growth regulators.

## **B.Sc. II Year (Semester-IV)**

### **Gymnosperm and Utilization of Plants (BOT – 411)**

- **CO1:** Study salient features of Gymnosperms, morphology, and anatomy of Cycas, Pinus, Gnetum.
- **CO2:** Study fossils, fossilization, Lyginopteris, and geological time scale.
- **CO3:** Study utilization of plants.
- **CO4:** Study Wheat, Jowar.
- **CO5:** Study Sugarcane, Cotton Jute.

### **Plant Ecology (BOT – 412)**

- **CO1:** Study climatic factors: light, temperature, and water.
- **CO2:** Study edaphic factors: soil study, soil formation.
- **CO3:** Study physicochemical properties of soil.
- **CO4:** Understand community ecology.
- **CO5:** Understand ecosystem and study Photosynthesis.
- **CO6:** Study soil types of India.

## **B.Sc. III Year (Semester-V)**

### **Cell Biology and Molecular Biology (BOT – 511)**

- **CO1:** Study cell and cell wall, and cell organelles (Golgi complex, Endoplasmic reticulum, Lysosomes, Nucleus).
- **CO2:** Study cell division, cell cycle, Mitosis, Meiosis, processes, and significance.
- **CO3:** Study Nucleic acids, DNA chemical composition, replication of DNA, RNA structure types, and function.
- **CO4:** Study chromosomes.

### **Plant Pathology (BOT – 512)**

- **CO1:** Study fundamentals of Plant Pathology.
- **CO2:** Study the classification of plant diseases.
- **CO3:** Get information about plant pathological institutes (IARI, ICRISAT).
- **CO4:** Study seed pathology.
- **CO5:** Study airborne pathogens, methods, and application.

## **B.Sc. III Year (Semester-VI)**

### **Genetics and Biotechnology (BOT – 611)**

- **CO1:** Study Mendelism, G. J. Mendel, and Mendelian principles.
- **CO2:** Study interaction of genes.
- **CO3:** Study chromosomal theory of sex determination.
- **CO4:** Study of Biotechnology.

### **Microbiology and Disease Management (BOT – 612)**

- **CO1:** Study microbial techniques: microscopy, micrometry, staining, sterilization of glass wares.
- **CO2:** Study preparation of culture media for isolating plant pathogens.
- **CO3:** Study industrial application of microorganisms.
- **CO4:** Study disease management and preventive methods.