

Department of Botany

Course Outcome

BOT/I/CC/01 Cryptogams (Theory): To make the student get awareness and study the depth about Fungi, Algal, bryophytes and pteridophytes. Learn about structure, pigmentation, food reserves and methods of reproduction of Algae, fungi and to give information about lower plants and their life cycle. To understand the stellar evolution and seed formation habit in pteridophytes.

BOT/I/CC/02 (Practical): Student can classify and identify the Algal and fungal genus and species. Student can make micro preparation of the material of Pteridophyta and bryophytes and identify them anatomically.

BOT/II/CC/03 Phanerogams (Theory) : To gain knowledge about life cycles of gymnosperm plants. Interpret the performance characteristics and life cycle and the diversity of plant biology of seed plants. To gain knowledge of plant cells , tissues and their functions. Learn about double fertilization and their significance.

BOT/II/CC/04(practical): Know about the Structure and development of dicot and monocot embryos. Learn the types of classifications, briefly studied on herbarium techniques. Brief studied the economic products with special reference to the Botanical name, family and morphology.

BOT/III/CC/05 Plant Physiology, Biochemistry, Ecology (Theory): Understanding the plant and water relation process of photosynthesis and respiration. To gain Knowledge about the function and molecular components within the plants. Student will familiar with the environmental concept.

BOT/III/CC/06 (Practical): To understand plant physiological processes and metabolism. Student will understand how to calculate plant population by quadrat method.

BOT/IV/CC/07 Microbiology, Cytology, Genetics, Evolution (Theory): To get awareness of different micro organisms and its importance and the harmful effects. Student will understand the structure & function of cell inclusion, cell division, DNA- RNA types and their structure. The Mendelism laws and interaction of gene and extra nuclear genome. The linkage, crossing over, variation, mutation and structural changes in chromosome numbers. To give Awareness to the student to understand evolution and its importance.

BOT/IV/CC/08 (Practical): Study the bacterial Structure, organisation of cell division and cell membranes models. Student will able to know the chemical structure and properties of Amino acid. To understand different types of genetic interaction.

BOT/V/CC/09 Fungi, Plant pathology, Biostatistics- Theory: Detail study of the different types of fungal diseases and symptoms in plants and its prevention and control measures. Application of statistical method to solve problems

BOT/V/CC/10 (Practical) : Practical knowledge on the different methods of isolation of microbes and its culture using different culture media. Practical knowledge on various plant pathogens and their symptoms in different plants. Student will practice various statistical methods of analysis.

BOT/V/CC/11 Algae, Lichen, Bryophytes – (Theory): Interpret the performance characteristics and life cycle of various lower plants. Know about the Economic importance of algae, Bryophytes and lichen. Know the systematic, morphology and structure, of Algae. Understand the life cycle pattern of Algae, Bryophytes and Lichen.

BOT/V/CC/12 (Practical): Practical Knowledge of vegetative and reproductive structure of selected species in algae, lichen and fossils bryophytes.

BOT/V/CC/13– (Theory): Cytogenetics, Plant Breeding, Bioinformatics (Theory): Understanding the functions of chromosomes in the genetic study of genes, genetic variations and hereditary in living organisms. The course helps students to apply basic technique in plant breeding. Bioinformatics may help students to analyse the basic biological data.

BOT/V/CC/14 (Practical): Gain a clear view of the mechanism of heredity and transfer of genetic material. Understanding the processes of plant breeding and crop development using different breeding techniques. Learners will be able to understand the designing and function of various databases and bio informatic resources.

BOT/V/CC/15: Environmental Biology, Ethnobotany (Theory) : Deals with modern conservation of biology under natural conditions. knowing the importance of plants and its products also the economical uses

BOT/V/CC/16: Environmental Biology, Ethnobotany (Practical): They will be understand the factors leading to Environmental degradation, their reasons and their impact on the Environment. Identify the economic products with Botanical name, family and uses from field visit.

BOT/VI/CC/17: Pteridophytes, Gymnosperms, Palaeobotany, Palynology (Theory): Understanding the morphological diversity basic taxonomy evolution and general characteristics of the plants. To understand plant spores and pollen in both living and fossil form. To understand about geological time scale.

BOT/VI/CC/18: Pteridophytes, Gymnosperms, Palaeobotany, Palynology (Practical) : To gain knowledge about life cycles of gymnosperm plants. To explain about fossils and fossilization through permanent slides. Practical observation of the morphology and types of pollen grains of different plant species under palynological studies.

BOT/VI/CC/19: Angiosperm taxonomy, Anatomy, Embryology (Theory): Student will Know the concept of methodology in taxonomy. To study internal structure and developmental pattern of the plant. To know fertilization, endosperm and embryogeny the scope and its importance.

BOT/VI/CC/20: Angiosperm taxonomy, Anatomy, Embryology (Practical) : The students will develop knowledge about plant nomenclatures. Understand the normal and anomalous secondary growth in plants and their causes. Know fertilization, endosperm and embryogeny.

BOT/VI/CC/21: Plant Metabolism, Biochemistry, Thermodynamics – (Theory): They will learn the nucleic acid metabolism and understand the protein biosynthesis of amino acid. Lipid metabolism and significances in plants. Learning the properties, Enzyme catalysis and activation energy– Mechanism of enzyme action. Understand the basic concept of energy changes in biological system

BOT/VI/CC/22: Plant Metabolism, Biochemistry, Thermodynamics – (Practical): students will learn about the movement of sap and absorption of water in plant body, plant nutrient uptake and translocation, photosynthesis, respiration. They will be able to understand Brief outline of biosynthesis and of amino acid.

BOT/VI/CC/23: Plant Biotechnology, Experimental Embryology (Theory) : To Gain knowledge about the mechanism in DNA replication, fundamentals of recombinant DNA technology and genetic engineering. To understand the principle and basic protocol for plant tissue culture.

BOT/VI/CC/24: Plant Biotechnology, Experimental Embryology (Practical) : Students will have Knowledge on basic principles and modern age applications of recombinant DNA technology. Various case studies related to basic and applied research in plant sciences using transgenic technology. Understand the principle and basic protocols for Plant Tissue Culture.