Course Outcomes B.Sc. Botany

Course Structure (Three Year Annual Program)

S.N.	Program	Paper	Topic
1	B.Sc. 1	I	Fungi, Lichens, Bacteria & Viruses
		II	Algae and Bryophyta
		III	Pteridophyta and Gymnospermopyhyta
2	B.Sc. II	I	Taxonomy, Morphology & Anatomy, Plant Reproduction
		II	Plant Physiology and Plant Ecology
		III	Cytology And Genetics, Molecular Biology, Evolution
3	B.Sc. III	I	Microbiology and Applied Microbiology, Plant Pathology,
		II	Economic Botany, Applied Plant Anatomy, Marine Biology, Limnology and Plant Breeding
		III	Palaeobotany, Palynology, Plant Diversification, Morphogenesis and Tissue Culture

Course Outcomes (CO) B.Sc. Botany

Year 1

Course: Fungi, Lichens, Bacteria & Viruses

CO 1: The study of fungi, bacteria and viruses will enable the students to compare and understand the key concepts of the diverse microbial world.

CO 2: Understand the economic importance of algae and significance of lichens in relation to pollution.

CO 3: Students will understand pathogenicity of fungi and host responses, and the importance of fungi as saprobes.

CO 4: Students will understand the role played by bacteria in the colonization of land by higher forms, and comprehend their relevance in the fields of molecular biology and biotechnology, environmental and industrial microbiology.

CO 4: Students will learn how viruses and sub-viral pathogens serve as important model systems in the study of the various phenomena common to life, in addition to the techniques and tools related to the study of plant viruses.

Course: Algae and Bryophyta

CO 1: Recognize the Algal diversity, morphological and reproductive features of various genera, and classification of algae and lichens

CO 2: Understand the economic importance of algae.

CO 3: Recognize the diversity in the gametophytic and sporophytic organization of Liverworts.

CO 4: Knowledge of features, classification and affinities of Bryophytes, and diversity in gametophytic and sporophytic organization of Moss and Hornwort

Course: Pteridophyta and Gymnospermopyhyta

CO 1: Knowledge of different classes of Pteridophytes along with their stelar details and seed habit

CO 2: Complete insight of the morphological, anatomical and reproductive diversity within the Pteridophytes

CO 3: Knowledge of morphological, anatomical and reproductive diversity within Gymnosperms.

CO 4: Understanding of the economic importance of Gymnosperms.

Year II

Course: Taxonomy, Morphology & Anatomy, Plant Reproduction

CO 1: Knowledge of Angiosperm systematics through classifications, herbaria, botanical gardens and hotspots

CO 2: Complete insight of the taxonomic & phylogenetic diversity and economic importance of representative families

CO 3: Clear concept of meristems, tissues, their growth and differentiation, and development of organs

CO 4: Understanding of the reproductive system in Angiosperms

Course: Plant Physiology and Plant Ecology

CO 1: Knowledge of different aspects of plant water relations, culture methods and mineral nutrients.

CO 2: Complete insight of plant enzymes and various perspectives of photosynthesis.

CO 3: Knowledge about the ecological groups of plants and their adaptations to diverse habitats

CO 4: Gain an insight into the diverse ecosystems and related food webs and ecological pyramids

Course: Cytology and Genetics, Molecular Biology, Evolution

CO 1: Knowledge of structure and function of cell and its organelles

CO 2: Understanding of the chromosome organization and cell division

CO 3: Understanding of the phenomenon of inheritance along with deviations and sex determination

CO 4: Understand the concept of origin of life, and comprehend evolution based on theories and evidences

Year III

Course: Microbiology and Applied Microbiology, Plant Pathology,

CO 1: Gain knowledge on types of microbial culture media, sterilization techniques, measurement of microbial growth and Nutritional types.

CO 2: Understanding of the handling and Standard Operating Procedures of different instruments being used in Microbiology laboratory.

CO 3: Understanding of the method and importance of Sterilization, preparation of media for the growth of microorganisms in the laboratory.

CO 4: Understanding of the Illustrate the disease cycle of bacterial and fungal pathogens of plants.

Course: Economic Botany, Applied Plant Anatomy, Marine Biology, Limnology and Plant Breeding

CO 1: Understanding of the crop diversity and origin, domestication and uses of crop plants, complete insight into economically important plants.

CO 2: Understanding of the internal structure of various parts of a plant and as well as among different plant groups in support for the evolutionary concept.

CO 3: Understanding of the zonation in aquatic ecosystem with their specific flora and fauna.

CO 4: Understanding of the crop plant improvement, employability skills by understanding Mendel's ratios and deviation, linkage and crossing over and the conventional methods of plant breeding.

Course: Palaeobotany, Palynology, Plant Diversification, Morphogenesis and Tissue Culture

CO 1: Gain knowledge on fossils and their types as well as their significance.

CO 2: Understanding the pollen morpho types and their application.

CO 3: Understanding of the evolution of plants during different geological periods and their origin and extension.

CO 4: Understanding of the tissue culture techniques in micro-propagation of rare and medicinal plants, the alternative techniques for mass propagation