Programme: B.Sc., Botany

Programme Outcomes

Upon completion of the B.Sc. Degree Programme the graduate will be able to

PO-1 emerge with competency in the subject of Botany and apply knowledge to cater to the needs of Society / Employer / Institution / Own Business Enterprise

PO-2 imbibe analytical / critical / logical / innovative thinking skills in the field of Bioinformatics, Molecular biology, Taxonomy, Biotechnology, Tissue Culture, Pharmacognosy, Commercial Plant Propagation Techniques

PO-3 acquire distinct traits and ethics with high professionalism to gain a broader insight into the domain concerned for nation building

PO-4 focus on theoretical and practical knowledge of traditional and emerging topics and advanced tools and techniques of research with understanding of plant science in a holistic perspective

PO-5 develop the importance and scope of the discipline and create a scientific attitude to make students open-minded, critical and curious and make them to share knowledge of creating awareness about diversity of plants, environmental issues, health and safety to the society

Programme Specific Outcomes

Upon completion of these courses the student would

PSO-1 understand and appreciating plant diversity and inculcating strong fundamentals on modern and classical aspects of Botany

PSO-2 imbibe analytical, critical and innovative thinking skills in the fields of Bioinformatics, Molecular Biology, Taxonomy, Microbiology, Biotechnology, Tissue Culture and Horticulture

PSO-3 focus on theoretical and practical knowledge of traditional and emerging areas of knowledge in Plant Science in a holistic perspective

PSO-4 organize and deliver relevant applications of knowledge through effective written, verbal and virtual communication and interact efficiently with people from diverse backgrounds

PSO-5 exchange social and environmental consciousness with their fellow citizens and acquire distinct traits and ethics with high professionalism to gain a broader insight into the domain concerned for nation building

COURSE OUTCOME

Diversity of lower and higher plants

CO-1 Distinguish the classification of Bryophytes, Pteridophytes and Gymnosperms in plant kingdom and relate their characteristic features

CO-2 Understand the phylogenetic evidence between the fossils and the living plants

CO-3 Recall the biological facts, concepts and principles and appreciating significance of plant kingdom

CO-4 Familiarize with basic information in Bryophytes, Pteridophytes and Gymnosperms with special attention to the economic importance of plants to society

CO-5 Develop the ability for the application of acquired knowledge in various fields of plant sciences

Taxonomy And Embryology Of Angiosperms

CO-1 Acquire thorough knowledge of the descriptive terms used in taxonomy and its classification

CO-2 Know about herbarium techniques, nomenclature, typification, author citation and modern trends in taxonomy

CO-3 Develop skills in sectioning, staining of fresh plant materials

CO-4 Analyse the structure and development of gametes, fertilization and embryo development

CO-5 Develop the ability for the application of acquired knowledge in histochemistry for the identification of different tissues

CELL BIOLOGY AND BIOTECHNOLOGY

CO-1 Describe the structures and functions of cell organelles

CO-2 Understand the mechanism of DNA replication and protein synthesis

CO-3 Analyse the various factors determining the hereditary from one generation to another

CO-4 Acquire combined knowledge and perform research work on molecular and cellular biology

CO-5 Ability to gain knowledge in tissue culture techniques and apply the skill to develop rare, biologically important plants

PLANT PHYSIOLOGY AND BIOCHEMISTRY

CO-1 Acquire basic knowledge about various plant water relations

CO-2 Gain knowledge on physiological processes between plants and their environment

CO-3 Understand and analyse the metabolic and physiological process unique to plants

CO-4 Comprehend the mechanisms of respiration in plants

CO-5 Understand the role of phytohormones, physiology of flowering and seed dormancy

PLANT ECOLOGY BIODIVERSITY AND PHYTOGEOGRAPHY

CO-1 Become familiar with the interaction of organisms with both the physical and biological environment

CO-2 Develop an understanding of the differences in the structure and function of different types of ecosystems

CO-3 Acquire knowledge about structural modifications of plants and plant succession

CO-4 Analyze the evolutionary ecology, natural selection and the distribution pattern of vegetation in the world

CO-5 Understand and analyze the phytogeographical divisions and climate of India