PROGRAMME OUTCOMES

M.Sc. Botany

PO1. Advanced Knowledge of Plant SciencesDemonstrate comprehensive understanding of plant morphology, anatomy, physiology, taxonomy, ecology, genetics, and biotechnology at an advanced level.

PO2. Research CompetenceDevelop the ability to identify research problems, formulate hypotheses, design experiments, and conduct independent scientific investigations.

PO3. Expertise in Laboratory and Analytical TechniquesAcquire hands-on skills in modern laboratory methods, instrumentation, molecular techniques, microscopy, biochemical assays, and data interpretation.

PO4. Application of Molecular and Cellular BiologyUnderstand advanced concepts in molecular genetics, genomics, proteomics, and use of molecular tools in plant science research.

PO5. Critical Thinking and Problem-Solving Skillsnalyze scientific data, evaluate evidence, and apply critical reasoning to solve botanical, ecological, and biotechnological problems.

PO6. Ecological and Environmental UnderstandingDemonstrate knowledge of ecosystem functioning, biodiversity assessment, environmental issues, and sustainable resource management.

PO7. Field Investigation SkillsConduct field studies, vegetation analysis, biodiversity documentation, herbarium preparation, and ecological surveys using modern tools and techniques.

PO8. Knowledge of Applied Botany and BiotechnologyApply concepts of plant breeding, plant tissue culture, bioprospecting, and genetic engineering in agriculture, industry, and conservation.

PO9. Proficiency in Bioinformatics and Data AnalysisUse bioinformatics databases, computational tools, statistical methods, and software relevant to molecular and ecological research.

PO10. Scientific Communication SkillsPrepare scientific reports, research papers, project proposals, and deliver effective oral and poster presentations.

PO11. Ethical and Professional ResponsibilityDemonstrate scientific ethics, academic integrity, environmental responsibility, and professional behavior in research and workplace settings.

PO12. Employability and Higher Education PreparednessDevelop competencies for careers in research institutions, universities, biotechnology industries, environmental agencies, agriculture sectors, and pursue Ph.D. programmes.