

Programme Outcome (PO) for B.Sc. (Hons.) in Botany

The **Bachelor of Science (Hons.) in Botany** program aims to develop foundational to advanced knowledge in plant sciences with an emphasis on biological diversity, structure, functions, ecology, evolution, biotechnology, and economic importance of plants. On successful completion of the program, students will be able to:

PO1: Fundamental Knowledge

Acquire a strong conceptual foundation in core areas of Botany including microbiology, phycology, mycology, plant anatomy, systematics, ecology, physiology, genetics, and molecular biology.

PO2: Analytical and Laboratory Skills

Develop proficiency in laboratory techniques for plant identification, microscopy, physiology, genetics, and biotechnology, along with the ability to interpret experimental data critically.

PO3: Scientific Inquiry and Research

Understand the principles of scientific investigation and gain experience in formulating hypotheses, designing experiments, and presenting research through a capstone dissertation or project.

PO4: Application of Knowledge

Apply botanical knowledge in areas such as agriculture, horticulture, environmental management, plant pathology, biodiversity conservation, and sustainable development.

PO5: Environmental and Ecological Awareness

Evaluate ecological processes, environmental issues, and the impact of human activities on biodiversity and ecosystems with a scientific and ethical approach.

PO6: Biotechnology and Innovation

Gain insights into molecular tools and biotechnological applications in plant sciences, preparing students for industrial, academic, or entrepreneurial ventures.

PO7: Communication and Scientific Literacy

Develop the ability to effectively communicate biological concepts, experimental results, and scientific information in written, oral, and visual formats.

PO8: Ethics, Responsibility, and Teamwork

Inculcate values of scientific integrity, professional ethics, and the ability to work independently as well as collaboratively in diverse teams.

PO9: Career and Entrepreneurship Readiness

Prepare for employment in education, research, environmental consultancy, agriculture, horticulture, biotechnology, and allied sectors or for pursuing higher studies like M.Sc., B.Ed., or competitive exams.

PO10: Lifelong Learning

Cultivate an inquisitive attitude for lifelong learning and staying updated with scientific advancements and global environmental challenges.