Programme Outcome
&
Programme Specific Outcome

Department of Botany
Nalbari College, Nalbari, Assam - 781335

The three-year B.Sc. course in Botany is affiliated with Gauhati University, Guwahati, Assam. This affiliation ensures that the curriculum is designed to meet high academic standards and is periodically updated to reflect the latest advancements in botanical sciences. The detailed course outcomes and programme outcomes are meticulously crafted to provide students with comprehensive knowledge and skills in various aspects of plant sciences.

Programme Outcome: Bachelor of Science (B.Sc.)

- **Scientific Knowledge**: Develop a comprehensive understanding of core scientific concepts and principles across various disciplines such as physics, chemistry, biology, and mathematics. This foundation enables students to apply scientific knowledge to real-world problems and advanced studies.

- **Analytical and Problem-Solving Skills**: Enhance critical thinking and analytical skills through the application of scientific methods. Students will be adept at designing experiments, analyzing data, and interpreting results to solve complex scientific problems.

- **Research Proficiency**: Cultivate the ability to conduct independent and collaborative research. Students will gain hands-on experience in laboratory techniques, fieldwork, and the use of scientific tools, preparing them to contribute to scientific research and innovation.

- **Technical Skills**: Acquire proficiency in modern scientific tools and technologies, including computational methods, laboratory instrumentation, and data analysis software. These skills are essential for scientific investigations and industry applications.

- **Communication Skills**: Improve written and oral communication skills to effectively disseminate scientific information. Students will be able to write detailed reports, create scientific presentations, and communicate their findings to both scientific and non-scientific audiences.

- **Interdisciplinary Approach**: Foster an interdisciplinary perspective by integrating knowledge from different scientific fields. This holistic approach encourages innovation and the ability to tackle complex, multifaceted problems.

- **Ethical and Social Responsibility**: Develop a strong sense of ethics and social responsibility. Students will understand the ethical implications of scientific research and practice and the importance of sustainable and socially responsible scientific endeavours.

- **Lifelong Learning**: Promote a commitment to lifelong learning and professional development. Graduates will be motivated to stay current with the latest scientific advancements and continuously improve their knowledge and skills.

- **Environmental Awareness**: Increase awareness of environmental issues and the role of science in addressing these challenges. Students will learn about sustainable practices and the impact of human activities on the environment, preparing them to contribute to environmental conservation efforts.

- **Career Preparedness**: Equip students with the skills and knowledge necessary for successful careers in science-related fields. Graduates will be prepared for opportunities in academia, research institutions, industry, healthcare, environmental agencies, and other science-based professions.

Programme Specific Outcome: B.Sc. (Botany)

PSO1. A student completing the course is able to understand different branches of Botany such as systematics, evolution, ecology, developmental biology, physiology, biochemistry, plant interactions with microbes and insects, morphology, anatomy, reproduction, genetics and molecular biology of various life-form

PSO2. They become competent enough in various analytical and technical skills related to plant sciences.

PSO3. The student completing the course can identify various life forms of plants, design and execute experiments related to basic studies on evolution, ecology, developmental biology, physiology, biochemistry, plant interactions with microbes and insects, morphology, anatomy, reproduction, genetics, microbiology, molecular biology, recombinant DNA technology, proteomics and transgenic technology. Students are also familiarized with the use of bioinformatics tools and databases and in the application of statistics to biological data.

PSO4. The student completing the course is capable to perform short research projects using various tools and techniques in plant sciences and develop scientific temperament and research attitude.