



# DEPARTMENT OF BOTANY

## PRAGJYOTISH COLLEGE

Santipur, Guwahati – 781009, Assam

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### PROGRAMME SPECIFIC OUTCOME (B.SC. IN BOTANY)

The programme specific outcome of the syllabus prescribed as per Gauhati University for the Honours students of Botany is mentioned below:

- **PSO1:** Critical evaluation of the ideas and arguments by collection of relevant information about plants, to recognize the position of plant in the broad classification and phylogenetic level.
- **PSO2:** Identify problems and independently propose solutions using creative approaches, acquired through interdisciplinary experiences, and a depth and breadth of knowledge/expertise in the field of Plant Identification.
- **PSO3:** Accurate interpretation of collected information and use taxonomical information to evaluate and formulate a position of plant in taxonomy.
- **PSO4:** Students will be able to apply the scientific method to questions in botany by formulating testable hypothesis, collecting data that address these hypotheses, and analyzing those data to assess the degree to which their scientific work supports their hypotheses.
- **PSO5:** Students will be able to present scientific hypothesis and data both orally and in writing in the formats that are used by practicing researchers/scientists.
- **PSO6:** Students will be able to access the primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works.
- **PSO7:** Students will be able to apply fundamental mathematical tools (statistical analysis, SPSS) and physical principles (physics, chemistry) to the analysis of relevant biological situations.
- **PSO8:** Students will be able to identify the major groups of organisms with an emphasis on plants and be able to classify them within a phylogenetic framework. Students will be able to compare the characteristics of plants, algae, and fungi that differentiate them from each other and from other forms of life.
- **PSO9:** Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped plant morphology, physiology, and life history.
- **PSO10:** Students will be able to explain how Plants functionate the level of the gene, genome, cell, tissue, Flower development. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and mode of life cycle

followed by different forms of plants.

- **PSO11:** Students will be able to explain the ecological interconnectedness of life on earth by tracing energy and nutrient flow through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.
- **PSO12:** Students will be able to demonstrate proficiency in the experimental techniques and methods of analysis appropriate for their area of specialization within biology.