

# **Programme Specific Outcome (PSO)**

## **Four Year Undergraduate Programme B.S.c. (Major in Physics)**

offered by

**Department of Physics, Kamrup College, Chamata**

in affiliation to Gauhati University

### **1. PROGRAM SPECIFIC OUTCOME (PSO):**

The objective of B.Sc. Physics (Hons) program as per the CBCS system of Gauhati University is to provide students with a comprehensive, high-quality education in the physical sciences. It also aims to help students understand the basic Physics concepts and significance of various physical phenomena and apply the theories learned and the skills acquired to solve real-time problems. The program also aims to provide students with an academic base that responds to the need of the students to understand the basics of Physics and its ever-evolving nature of applications. The program specific outcomes are:

- The students will gain a scientific understanding of the fundamental concepts in Physics through the study of Classical Mechanics, Electromagnetic Theory, Optics, Heat and Thermodynamics, Statistical Mechanics, Solid State Physics, Nuclear Physics, Modern Physics, Quantum Mechanics, along with other areas of Physics.
- The students will learn how to use computers at an appropriate level for: a) experimental design and implementation; b) analysis of experimental data; c) numerical and mathematical methods in problem solving; and apply them for theoretical problem solving in Physics and related disciplines.
- The students will develop some computational ability utilizing open source software programs as Gnuplot, Python, Numpy, Scipy, Matplotlib, Matlab, LaTeX, Arduino IDE, etc. on both Linux and Windows platforms. This will not only get them ready for further studies or research in any area of physics, but it will also get them ready for a variety of jobs in the IT industry and other fields.
- The students will gain good communication skills to express their knowledge of physics in the form of maintaining laboratory note books, project work, seminar presentations, poster presentations, wall magazines, models, and other modes, ranging from fundamental principles to specialized advanced topics, and will develop their ability to collaborate as well as to work independently.
- The students will acquire the necessary skills to read scientific literature and gain purposeful knowledge of scientific ethics, especially in the domain of Physics.