PRABHU JAGATBANDHU COLLEGE

DEPARTMENT OF PHYSICS

Programme outcome (PO):

The Board of Studies in Physics (UG) recognizes that curriculum, course content and assessment of scholastic achievement play complementary roles in shaping education. Physics deals with a wide variety of systems, certain theories are used by all physicists. Each of these theories were experimentally tested numerous times and found to be an adequate approximation of nature. Physics uses mathematics to organize and formulate experimental results. This should also support the ability to ask physical questions and to obtain solutions to physical questions by use of qualitative and quantitative reasoning and by experimental investigation. The results from physics experiments are numerical measurements. Technologies based on mathematics, like computation has made computational physics an active area of research. Keep this in mind, we have aimed to provide a firm foundation in every aspect of Physics and to explain a broad spectrum of modern trends in physics and to develop experimental, computational and mathematical skills of students. The programme also aims to develop the following abilities:

PO1. Assess the existing knowledge, concepts, techniques, and methodology appropriate to the graduate's chosen discipline.

PO2. Understanding and interpreting the physical insights – verbal, mathematical and graphical.

PO3. Prepare the students in methodology related to physics.

PO4. Develop the skills to acquire information from the resources and use them properly.

PO5. Perform experiments and interpret the results of observation, including making an assessment of experimental uncertainties.

PO6. Provide an intellectually stimulating environment to develop skills and enthusiasms of students to the best of their potential.

PO7. Provide the Information Communication Technology to gather knowledge at will.

PO8. Attract outstanding students from all backgrounds

Programme specific outcome (PSO) of Physics Honours Course

PSO1. Students will exhibit disciplined work habits as an individual

PSO2. Students will show that they have learned laboratory skills, enabling them to take measurements in a physics laboratory and analyse the measurements to draw valid conclusions.

PSO3. Students will be capable of oral and written scientific communication, and will prove that they can think critically and work independently.

PSO4. Students will be able to demonstrate proficiency in the experimental techniques.

PSO5. Students will be able to identify major issues, debates, or approaches appropriate to the discipline.

Course outcome (CO) of Physics Honours Course

CO1. The course of UG Physics would empower the students to acquire knowledge theoretically with experimental verification so that the students will gain basic knowledge for their higher studies.

CO2. The students also learn the importance of measurement and the methodology of using different measuring devices.

CO3. Acquire the basic knowledge about various field of physics: mathematical physics, mechanics, thermodynamics, electricity & magnetism, electronics, optics, nuclear, atomic and also the modern physics.

CO4. This course is intended to provide clear conception regarding physical principles and application about modern electronics which is very essential for our daily life.

CO5. The students are provided knowledge of various Linear Integrated Electronic circuits and its application.

CO6. Electricity and Electrodynamics have the prime role in the development of modern technological world. Without electric power and communication facilities, life on the earth is just impossible. A course in electricity and electrodynamics is thus an essential component of physics programme at graduate level and this is provided.

CO7. This course impart the basic advanced theoretical studies in materials science, Spectroscopy, Astrophysics, Electrodynamics and Nuclear Physics.

CO8. This course have the aim to furnish necessary foundation in optics and photonics which prepare the students for an intensive study of advanced topics at a later stage.

CO9. This course provides a working knowledge of statistical mechanic.

CO10. This course aims to provide necessary foundation in optics and photonics which prepare the students for an intensive study of advanced topics at a later stage.

CO11. This course imparts a strong background in mathematical computation and also gives an insight to computer hardware and computer applications.

CO12. The course creates concern among the students on energy conservation and environmental protection.

Programme specific outcome (PSO) of Physics General Course

PSO1. Students will exhibit disciplined work habits as an individual.

PSO2. Students will be capable to show that they have learned laboratory skills, enabling them to take measurements in a physics laboratory and analyse the measurements to draw valid conclusions.

PSO3. Students will be competent in oral and written scientific communication, and will prove that they can think critically and work independently.

PSO4. Students will be able to demonstrate proficiency in the experimental techniques.

Course outcome (CO) of Physics General Course

CO1. This course of Physics for B.Sc general would empower the students to acquire knowledge theoretically with experimental verification.

CO2. Students acquire the ability to learn the importance of measurement and the measuring devices.

CO3. This course provides the basic knowledge about various field of physics: mathematical physics, mechanics, thermodynamics, electricity & magnetism, electronics, and also the modern physics.

CO4. This course furnishes clear conception regarding physical principles and application about modern electronics.

CO5. This course helps to develop a strong understanding in the field of Electricity and Electrodynamics which are the stand point of the modern technological world.

CO6. The students are provided knowledge in various Linear Integrated Electronic circuits and its practical application.

CO7. The students are furnished in computer application and mathematical computation.