

Programme Specific Outcome

B.Sc. Physics Honours (Under CBCS)

1. Physics deals with wide variety of systems that is to be tested both theoretically and experimentally. The subject needs proper blending of both theory and experiment. Each theories needs to be tested experimentally and the varieties of experimental facts needs proper explanation from its theoretical viewpoint. Physics uses mathematics to organize and formulate experimental results. From those results new predictions can be made or a theory can be ruled out. Computational physics is playing a vital role in this regard. The students need proper understanding of the different aspects of physical theories and experimental techniques so that they can apply those techniques in the upcoming advanced courses when they have finished their UG 3 year syllabus.
2. Students are expected to acquire knowledge in physics, including the major disciplines of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, special theory of relativity and modern physics. They must have a proper understanding of programming so that they can apply appropriate scientific programming skills wherever necessary.
3. Students should have the skill of identifying the key factors and applying appropriate principles and assumptions in the formulation of physical problems.
4. Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Not only that they are expected to have an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
5. Students will realize and develop an understanding of the impact of physics and science on society.
6. Students are also expected to develop written and oral communication skills in communicating physics-related topics.
7. Apply conceptual understanding of the physics to general real-world situations.
8. Discover physics concepts in other major disciplines such as mathematics, computer science, engineering, and chemistry.
9. After the completion of program, students will be able to have in-depth knowledge of basic concepts in physics.
10. Students will be able to apply the laws of physics in real life situations to solve the problems.
11. Student develop attitude of doing research through undertaking small projects.
12. Student will have set his foundation to pursue higher education in physics.
13. After completing the program student will have developed interdisciplinary approach and can pursue higher studies in subjects other than physics.