Physics Programme Outcome & Course Outcome

Programme	Programme objective	Programme specific objective
B.Sc. Physics (Honours)	**PO-1**. Students will have the skills in Physics and its related areas of technology for formulating and tackling Physics-related problems. They will apply appropriate physical principles and methodologies to solve a wide range of problems associated with Physics. **PO-2**. The students will be able to acquire thorough knowledge about different natural phenomena. **PO-3**. They can develop within themselves a scientific temper. Laboratory work, included in the programme will enhance their demonstrative and problem solving skill which will help them in professional work in near future. They will acquire personal skills such as the ability to work both independently and in a group. **PO-4**. They will be able to recognize the importance of	**Semester I** **PSO-1**. The students will acquire knowledge in vector analysis, special function like beta or gamma function, different polynomials which are used as tools in physics. **PSO-2.** They will be able to learn data ploting and curve fitting using gnuplot. **PSO-3.** They will have adequate knowledge in theoretical mechanics and special theory of relativity. **PSO-4.** They will be able to perform various experiments of mechanics. **Semester II** **PSO-1.** The students will have basic knowledge in Electricity and Magnetism. **PSO-2.** They will acquire skills related to the different types of electrical circuits and network theorems in the laboratory. **PSO-3.** They will have basic concepts in waves and optics. **PSO-4.** They will be trained to handle different optical instruments in dark room and will be able to demonstrate different properties of light.

Physics Programme Outcome & Course Outcome

	mathematical modelling, simulation and computing, and the role of approximation and mathematical approaches to describe the physical world. **PO-5**. They will develop themselves the ability to listen carefully, to read texts and research papers analytically and to present complex information in a concise manner to different groups/audiences of technical or popular nature **PO-6**. They will acquire a fundamental/systematic or coherent understanding of the academic field of Physics, its different learning areas and applications in basic Physics like Astrophysics, Material science, Nuclear and Particle Physics, Condensed matter Physics, Atomic and Molecular Physics, Mathematical Physics, Analytical dynamics, Space science, and its linkages with related disciplinary areas/subjects like Chemistry, Mathematics, Life sciences, Environmental sciences, Atmospheric Physics, Computer science, Information Technology. **PO-6**- Students will be able to prepare themselves for the entrance examinations conducted by the different universities and research laboratories.	**Semester III** **PSO-1.** Students will learn about complex number and their integration, matrix algebra, probability and Dirac Delta function. **PSO-2.** They will able to learn basic python language for computer programming. **PSO-3.** They will get knowledge in thermodynamics and Kinetic theory of gases. **PSO-4.** They will be able to do different experiment in thermal physics lab. **PSO-5.** To gather practical knowledge in digital elecctronics. **PSO-6.** They will be able to do different experiment in digital systems of electronics. **PSO-7.** Students will learn about renewable energy and energy Harvesting system. **Semester IV** **PSO-1.** Students will learn about Linear vector space, Integral transform and Eigen value and eigen vectors and their properties. **PSO-2.** They will able to learn scilab language for computer programming. **PSO-3.** They will be able to get introductory understanding on Modern Physics. **PSO-4.** They will be able to perform experiment in modern physics lab. **PSO-5.** They will be able to do different experiment in analog systems of electronics. **PSO-6.** They will be able to do different experiment in analog systems of electronics. **PSO-7.** They will get knowledge in Radiation safety

Physics Programme Outcome & Course Outcome

		Semester V **PSO-1.** The students will learn about advanced quantum mechanics and atomic physics **PSO-1.** They will be able to perform experiment in quantum mechanics lab. **PSO-2.** They will learn about solid state physics. **PSO-3.** They will be able to perform experiment in solid physics lab. **PSO-4.** They will be able to gather knowledge in Classical dynamics and nuclear particle physics.
		Semester VI **PSO-1.** The students will learn about electromagnetic theory. **PSO-2.** They will be able to perform experiment in electromagnetic theory lab. **PSO-3.** The students will learn about statistical mechanics. **PSO-4.** They will be able to perform computational study in statistical mechanics. **PSO-5.** They will have knowledge in the new discipline of Physics like Nano materials, Physics of earth, Biological physics or communication physics.

Programme	Programme objective	Programme specific objective
B.Sc. Physics (Programme)	**PO-1**. Students will acquire a basic overall knowledge in different topics of Physics. **PO-2**. Students will grow their ability to tackle Physics related problems. They will be able to apply their acquired knowledge related to various practical issues in their day-to-day life. **PO-3**. Laboratory work included in this programme will help to develop and enhance the	**Semester I** **PSO-1**. The students will acquire basic knowledge in vector analysis, mechanics, general properties of matter, special theory of relativity, sound and electrostatics. **PSO-2.** They will be able to perform different experiments of mechanics and general properties of matter.
		Semester II **PSO-1.** The students will acquire basic knowledge in electricity and magnetism, heat and thermodynamics. **PSO-2.** They will be able to perform different experiments of electricity and heat.

Physics Programme Outcome & Course Outcome

	demonstrative and problem solving skill of the students. **PO-4** Students will acquire personal skills such as the ability to work both independently and in a group. **PO-5** They will develop the ability to listen carefully, to read texts and to present information in a succinct style to diversified groups of people. **PO-6** Students will be able to prepare themselves for the job oriented competitive examination.	**Semester III** **PSO-1.** Students will learn about different topics in optics, solid state physics and modern physics. **PSO-2.** They will be able to perform different experiments of optics and modern physics. **PSO-3.** Students will learn about different forms of renewable energy and energy Harvesting systems.
		Semester IV **PSO-1.** Students will learn about semiconductor physics, analog and digital electronics. **PSO-2.** They will be able to perform different experiments of analog and digital electronics. **PSO-3.** They will get knowledge in Radiation safety.
		Semester V **PSO-1.** They will be able to gather knowledge in various topics of classical dynamics. **PSO-2** They will acquire knowledge on electrical circuits and network skills.
		Semester VI **PSO-1.** The students will gain knowledge in the new interdisciplinary branch of physics viz. the physics of earth. **PSO-2.** They will be able to expertise in some basic instrumentation skills.