COURSE OUTCOMES B.Sc. Physics PHY-111 Everyday Physics On completion of this Course, a student will have developed the ability to	
CO-1	Recall fundamental concepts in Physics and connect them in everyday life
CO-2	Describe the fundamental concept to understand the physical phenomena happening around us.
CO-3	Apply fundamental concepts in Physics to analyse these phenomena.
CO-4	Correlate the concepts of Physics in other branches of science.

COURSE OUTCOMES B.Sc. Physics PHY-131 History of Physics On completion of this Course, a student will have developed the ability to	
CO-1	Understand that the development of Physics was incremental.
CO-2	Realize that a few great men and women influenced the development of physics.
CO-3	Analyse different laws and theories of physics and their impact on modern science.
CO-4	Understand that results that could not be explained often led to the introduction of radical new physics.

COURSE OUTCOMES B.Sc. Physics PHY-132 Indian Contribution to Physics On completion of this Course, a student will have developed the ability to	
CO-1	Decipher contributions of Indians to Physics.
CO-2	Understand the role played by some of them in building modern India.
CO-3	Gain knowledge of Indian Atomic Energy Programme and Indian Space programme.
CO-4	Get inspired from the biographies of these men.

COURSE OUTCOMES B.Sc. Physics PHY-141 Basic Experimental Techniques On completion of this Course, a student will have developed the ability to	
CO-1	Identify different components and Experimental instruments
CO-2	Gain Basic understanding of Experimental instruments.
CO-3	Develop Skills in performing Physics experiments.
CO-4	Calculate errors in an experiment and other parameters related to the experiment.

COURSE OUTCOMES B.Sc. Physics PHY-143 House Wiring On completion of this Course, a student will have developed the ability to	
CO-1	Acquire hands-on training on handling and using equipment used for household wiring.
CO-2	Perform simple electrical jobs.
CO-3	Undertake home wiring.
CO-4	Design proper lighting and fan placements for a room
CO-5	Check for proper earthing and electrical safety.
CO-6	Find simple faults of electrical gadgets.

COURSE OUTCOMES B.Sc. Physics PHY-144 PCB Designing On completion of this Course, a student will have developed the ability to	
CO-1	Develop the necessary skills in drawing circuit diagrams anduse techniques of circuit analysis for designing a given circuit as per given specifications.
CO-2	Use a Breadboard for a prototype implementation of circuits, test the performance of the circuit design using testing and measuring instruments (Multimeter, CRO, power supply etc)
CO-3	Develop soldering and de-soldering techniques and develop the necessary skills in etching PCBs.
CO-4	Create and fabricate a PCB, construct and test the circuit design on PCBs.

COURSE OUTCOMES B.Sc. Physics PHY-200 Properties of Matter and Sound On completion of this Course, a student will have developed the ability to	
CO-1	Understand fundamental concepts of mechanical properties of solids and liquids and understand concepts of oscillatory motion.
CO-2	Analyze beams subjected to stress and estimate their deformation.
CO-3	Interpret interference of sound and explain formation of beats
CO-4	Analyze wave motion to evaluate speed of sound

COURSE OUTCOMES B.Sc. Physics PHY-201 Heat & Thermodynamics On completion of this Course, a student will have developed the ability to	
CO-1	Recall the fundamental properties of gases and laws of Thermodynamics.
CO-2	Understand the principles of heat and thermodynamics.
CO-3	Apply the law to analyse the process.
CO-4	Analyse the factors influencing Behaviour of gas.
C0-5	Examine principles and applications of low-temperature technology

COURSE OUTCOMES B.Sc. Physics PHY-202 Electronics On completion of this Course, a student will have developed the ability to	
CO-1	Understand the working principles of rectifiers and their applications.
CO-2	Develop a solid understanding of transistor operation and characteristics.
CO-3	Define and explain key amplifier parameters such as gain, bandwidth, and input/output impedance.
CO-4	Understand the characteristics and operation of Class A amplifiers and its stability.
C0-5	Define and explain the concept of feedback in electronic circuits.
CO-6	Understand the characteristics and applications of operational amplifiers (Op-Amps)

COURSE OUTCOMES B.Sc. Physics PHY-203 Optics and Modern Physics On completion of this Course, a student will have developed the ability to	
CO-1	Analyse the intensity variations of light due to interference, diffraction and polarization.
CO-2	Apply and demonstrate the various phenomena of optics using experimental methods.
CO-3	Understand the fundamental principles of particle acceleration.
CO-4	Explore principles of atomic physics in various scientific disciplines.
CO-5	Discuss application of X-rays in various fields.
CO-6	Discuss the applications of crystallography in in various sciences.

COURSE OUTCOMES B.Sc. Physics PHY-204 Classical Mechanics - I On completion of this Course, a student will have developed the ability to	
CO-1	Understand the basic principles of kinematics and dynamics for motion in one and two dimensions
CO-2	Demonstrate a thorough understanding of projectile motion concepts.
CO-3	Understand the concept of central forces and their implications on the motion of particles.
CO-4	Comprehend the concept of a moving coordinate system and its advantages in problem-solving.
CO-5	Understand the principles of rotational motion and dynamics of rigid bodies.

COURSE OUTCOMES B.Sc. Physics PHY-205 Mathematical Methods of Physics - I On completion of this Course, a student will have developed the ability to	
CO-1	Explain the properties of Matrices, determinants and discuss its applications.
CO-2	Discuss vector analysis and its applications.
CO-3	Solve problems on limits, continuity and differentiation.
CO-4	Explain and solve the problems on integration and differential equations

COURSE OUTCOMES B.Sc. Physics PHY-211 Electricity & Magnetism On completion of this Course, a student will have developed the ability to	
CO-1	Understand the basic principles of electric circuits.
CO-2	Understand the behaviour and characteristics of inductors and analyze the role of inductance in electrical circuits.
CO-3	Analyze the response of DC and AC circuits.
CO-4	Understand the Lorentz force acting on a moving charged particle in a magnetic field.
CO-5	Apply the right-hand rule to determine the direction of the force experienced by a current-carrying conductor in a magnetic field.
CO-6	Understand the torque experienced by a current loop in a magnetic field.

COURSE OUTCOMES B.Sc. Physics PHY-221 Communication Physics On completion of this Course, a student will have developed the ability to	
CO-1	Understand basics of electronic communication.
CO-2	Understand Transmission lines and Antenna systems.
CO-3	Gain insights about fibre optic communication
CO-4	Appreciate basics of satellite communication.
CO-5	Develop conceptual understanding of cellular communication.

COURSE OUTCOMES B.Sc. Physics PHY-241 Introduction to LaTeX and open-source plotting software On completion of this Course, a student will have developed the ability to	
CO-1	Utilize LaTeX to prepare a well referenced scientific articles, project reports, presentations and even make conference proceedings.
CO-2	Learn how to use the preamble of a LaTeX file to define document class and layout options.
CO-3	Learn BibTeX to maintain bibliographic information and generate a bibliography for a specific document.
CO-4	Use open-source plotting software and apply it for scientific data plotting and analysis.