Programme Outcomes (POs)

Course: Physics

PO1	Knowledge	Capable of demonstrating comprehensive disciplinary knowledge gained during course of study.
PO2	Communication	Ability to communicate effectively on general and scientific topics with the scientific community and with society at large.
PO3	Problem Solving	Capability of applying knowledge to solve scientific and other problems.
PO4	Individual and Team Work	Capable to learn and work effectively as an individual, and as a member or leader in diverse teams, in multidisciplinary settings.
PO5	Investigation of Problems	Ability of critical thinking, analytical reasoning and research based knowledge including design of experiments, analysis and interpretation of data to provide conclusions.
PO6	Modern Tool usage	Ability to use and learn techniques, skills and modern tools for scientific practices.
PO7	Science and Society	Ability to apply reasoning to assess the different issues related to society and the consequent responsibilities relevant to the professional scientific practices.
PO8	Life-Long Learning	Aptitude to apply knowledge and skills that are necessary for participating in learning activities throughout the life.
PO9	Environment and Sustainability	Ability to design and develop modern systems which are environmentally sensitive and to understand the importance of sustainable development.
PO10	Ethics	Apply ethical principles and professional responsibilities in scientific practices.
PO11	Project Management	Ability to demonstrate knowledge and understanding of the scientific principles and apply these to manage projects.

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CO No.	Course code (B-PHY-N-101): Mechanics

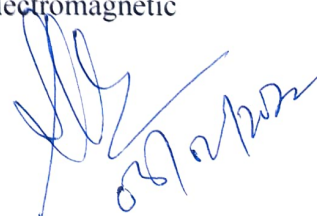**After successfully completing the course, student will be able to:**

CO-1 Understand the dynamics of system of particles, conservation of energy and momentum; different frame of references, cylindrical and spherical coordinates.

CO-2 Understand the application of both translational and rotational dynamics motions simultaneously in analyzing rolling with slipping. Analyze the two body Central Force problem and its application.

CO-3 Explain the properties of systems executing S.H.M. motions. Also, understand the principles and basic terms related to elasticity.

CO-4 Appreciate the concepts and Applications of special theory of relativity.

CO No.	Course code (B-PHY-N-201): Electricity, Magnetism & Electromagnetic waves

After successfully completing the course, student will be able to:

CO-1 Explain and differentiate the vector and scalar formalisms of electrostatics. Also be able to understand the important dielectric properties of materials.

CO-2 Describe the important properties of magnetic field. Understand the properties and theories of dia-, para- & ferromagnetic materials.

CO-3 Analyze DC/AC circuits consisting of parallel and/or series combinations of voltage sources and resistors and to describe the graphical relationship of resistance, capacitor and inductor.

CO-4 Derive Maxwell equations and understand the role of displacement current, scalar and vector potentials and boundary conditions at the interface between different media. The students will also be able to have basic idea about the propagation of electromagnetic waves