

Department of Physics

GOVT. GENERAL DEGREE COLLEGE, MANBAZAR II, PURULIA

Course Outcomes, Program Specific Outcomes & Program Outcomes

Course Code & Course Title	Course Outcomes
Mechanics BPHSGEHC12	CO-1: Understanding the basics of Vector algebra.
	CO-2: Comprehensive understanding of Classical (Newtonian) mechanics.
	CO-3: Conception of Work, Energy, momentum and Rotational motion with problem solving skills
	CO-4: Understanding about Gravitation, Oscillatory motion, Elasticity those are General properties of matter with problem solving skills.
	CO-5: Appreciate the role of mechanics in diverse field of Physics.
Electricity & Magnetism BPHSGEHC12A	CO-1: Learning Vector Differentiation and Integration and apply the related theorems in the problem solving areas of Physics.
	CO-2: Comprehensive understanding of electricity and magnetism principles, including electric and magnetic fields, Gauss' Law, Ampere's Circuital Law and Faraday's Law.
	CO-3: Developing problem solving skills in various scenarios.
	CO-4: Gaining practical experience through experiments to conduct and interpret electrical and magnetic measurements.
	CO-5: Applying this knowledge in technological applications and fostering critical thinking and analytical abilities.
BPHSCCRC101 Mechanics	CO-1: Understanding the basics of Vector algebra.
	CO-2: Comprehensive understanding of Classical (Newtonian) mechanics.
	CO-3: Conception of Work, Energy, momentum and Rotational motion with problem solving skills
	CO-4: Understanding about Gravitation, Oscillatory motion, Elasticity those are General properties of matter with problem solving skills.
	CO-5: Appreciate the role of mechanics in diverse field of Physics.
Electricity & Magnetism BPHSGEHC12	CO-1: Learning Vector Differentiation and Integration and apply the related theorems in the problem solving areas of Physics.
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	Circuital Law and Faraday's Law.
	CO-3: Developing problem solving skills in various scenarios.
	CO-4: Gaining practical experience through experiments to conduct and interpret electrical and magnetic measurements.
	CO-5: Applying this knowledge in technological applications and fostering critical thinking and analytical abilities.
Thermal Physics & Statistical Mechanics BPHSCC301	CO-1: Understanding the basics of thermodynamics.
	CO-2: Comprehensive understanding of Thermal Physics & Statistical Mechanics.
	CO-3: Conception of Thermodynamical Potentials, Kinetic Theory of Gases, Theory of Radiation with problem solving skills.
	CO-4: Understanding about Statistical Mechanics with problem solving skills.
	CO-5: Appreciate the role of thermal physics in diverse field of Physics.
Renewable Energy & Energy Harvesting BPHSSERT304	CO-1: Understanding the basics of Renewable Energy & Energy Harvesting.
	CO-2: Concept of Alternate Sources of energy with problem solving skills.
	CO-3: Understanding about different techniques of Energy Harvesting.
	CO-4: Developing consciousness about Environmental issues and Renewable sources of energy, sustainability.
Waves & Optics BPHSCC401	CO-1: Understanding the basics of wave and optics.
	CO-2: Comprehensive understanding of Superposition of two different SHMs, Interference, Diffraction and Polarization.
	CO-3: Understanding about different superposition phenomena with problem solving skills.
	CO-4: Learning to apply the role of wave optics in diverse field of Physics.
Computational Physics Skills BPHSSERT404	CO-1: Familiarize with computer system, Hardware and Software of Computers
	CO-2: To develop the idea of Binary number system and computer languages.
	CO-3: Introduction C programming language; its structure, operators, keywords and some simple programs using C language to solve numerical problems in Physics.
	CO-4: Introduction to LaTeX to learn scientific document processing.
	CO-5: Developing ability to solve exercises involving numerical physics problems through Programming.
Basic Instrumentation Skills BPHSSERT504	CO-1: Understanding the basics of Measurement.
	CO-2: Understanding and obtaining the ability to operate Electronic Voltmeter, Cathode Ray Oscilloscope, Signal Generators, Analysis Instruments and Digital Multimeter.
	CO-3: learning to apply lab skills to different test items mentioned in the syllabus.
	CO- 4: Able to perform the laboratory experiments as mentioned in the syllabus.

Electrical Circuits & Network Skills BPHSSERT604	CO-1: Understanding the basics of Electrical circuits and Network Skills.
	CO-2: Familiarization with multimeter, voltmeter and ammeter.
	CO-3: Learning the basics of Electrical Wiring and apply the concept in real situation.
	CO- 4: Conception of electric motors, solid state devices, Generators and Transformers and their principle of operation.