DEPARTMENT OF PHYSICS
COURSE OUTCOMES OF UNDERGRADUATE PROGRAMMES
(2016 – 2017 onwards)

Name of the Programme: B. Sc., Physics			Semester – I
Course Code	**Name of the Course**	**Course Outcomes**	
16SCCPH1	**PROPERTIES OF MATTER AND ACOUSTICS**	**CO 1**	Understand the various types of units.
		CO 2	Study the elastic behaviour and working of torsional pendulum
		CO 3	Study of bending behaviour and analyze the beams expression for young's modulus
		CO 4	Understand the surface tension and viscosity of fluid
		CO 5	Analyze waves and oscillations
16SCCPH1P	**CORE PRACTICAL - I**	**CO 1**	Study the elastic behaviour of materials
		CO 2	Understand the applications of instruments
		CO 3	Perform the procedure as per standard values
		CO 4	Analyze the relationship between various types of experiments

Name of the Programme: B. Sc., Physics			Semester – II
Course Code	**Name of the Course**	**Course Outcomes**	
16SCCPH2	**MECHANICS**	**CO 1**	Understand the definition for centre of gravity in hemisphere, hollow hemisphere etc.,.
		CO 2	Understand the dynamics and gravitation
		CO 3	Study the behaviour of rigid body dynamics
		CO 4	Learn an insight into different cultures.
		CO 5	Analyze the performance of hydrostatic and hydrodynamics

Name of the Programme: B. Sc., Physics			Semester – III
Course Code	**Name of the Course**	**Course Outcomes**	
16SCCPH3	**THERMAL PHYSICS**	**CO 1**	Analyses thermal conductivity and black body radiation
		CO 2	Analyses of zeroth law of thermodynamics and entropy
		CO 3	Understand the nature of calorimetry by specific heat of solids and law of thermodynamics and entropy
		CO 4	Understanding the low temperature physics
		CO 5	Understanding the thermal physics
16SCCPH2P	**CORE PRACTICAL - II**	**CO 1**	Study the air wedge shearing interferometer is probably the simplest type of interferometer designed to visualize the disturbance of the wave front after propagation through a test object. Materials
		CO 2	Understand the applications of instruments
		CO 3	Perform the procedure as per standard values
		CO 4	To understand the Young's modulus of the given material bar by uniform bending using pin and microscope method.

Name of the Programme: B. Sc., Physics			Semester – IV
Course Code	**Name of the Course**	**Course Outcomes**	
16SCCPH4	**ELECTRICITY, MAGNETISM AND ELECTRO MAGNETSM**	**CO 1**	Study the electric field using columns inverse square law in electrostatics of current
		CO 2	Analyze the chemical and heating effect of current
		CO 3	Analyze the relations between b, h and m
		CO 4	Understand the faradays laws of electromagnetic induction by Rayleigh's method
		CO 5	Analyze the value of maxwell equation- boundary conditions

Name of the Programme: B. Sc., Physics			Semester – V
Course Code	**Name of the Course**	**Course Outcomes**	
16SCCPH5	**OPTICS**	**CO 1**	Understand the natural behavior of aberration in lens
		CO 2	Study the theory and experimental past of diffraction by Fresnel's and Fraunh offer methods
		CO 3	Study the theories for production of polarization of light
		CO 4	Understand the theory and application of microwave, infrared and Raman spectroscopy
		CO 5	Study the theory and experiment of interference using air wedge, Newton's rings and Michelson interferometer
16SCCPH6	**ATOMIC AND MOLECLAR PHYSICS**	**CO 1**	Understand the properties of positive rays, experimental proof by frank and hertz method
		CO 2	Analyze the relationship between various types of couplings
		CO 3	Understand the properties of x-ray s verification
		CO 4	Analyze the ideas of basics of nucleus and their energy
16SCCPH7	**ELECTRONICS**	**CO 1**	Understand the basics of diode and working of rectifier circuits and characteristics
		CO 2	Analyze the characteristics of transistor and transistor biasing circuits
		CO 3	Perform the procedures for the working of single stage and multistage amplifier
		CO 4	Analyze the relationship between amplifier and oscillators
		CO 5	Understand the applications of op-amps inverting and non-inverting modes.
16SCCPH3P	**CORE PRACTICAL - III**	**CO 1**	Study the basic ideas of the experiment
		CO 2	Perform the procedure as the laboratory standards
		CO 3	Study the basic working, conditions of the experiments
		CO 4	Understand the applications of instruments
16SMBEPH1	**MATERIAL SCIENCE**	**CO 1**	Analyze the relationship between conductors and insulators and super conductivity
		CO 2	Understand the properties of matter and classifications - polarization
		CO 3	Understand the properties of semi-conductors
		CO 4	Understand the basic concepts of force between atoms and bonding between molecules
		CO 5	Analyze the relationship between semiconductor devices and understand the applications of semiconductor devices

Name of the Programme: B. Sc., Physics **Semester – VI**

Course Code	Name of the Course	Course Outcomes	
16SCCPH8	NUCLEAR PHYSICS	CO 1	Express the basic concepts of nuclear physics
		CO 2	Can identify some introductory terminology
		CO 3	Can tell a chronology of some of the major events in nuclear physics.
		CO 4	Express the radioactive decays.
		CO5	Can use the units and dimension
16SCCPH 4P	CORE PRACTICAL - IV	CO 1	Understand the universal gates
		CO 2	Study the emf, resistance, behavior of the materials
		CO 3	Analyze the specific eat capacity, refractive index, as per the standard procedure
		CO 4	Understand the standard values of the results
16SCCPH9	THEORETICAL PHYSICS	CO 1	Understand the basic significance of mechanics of a system of particles
		CO 2	Understand the old quantum theory
		CO 3	Perform the theories of quantum mechanics into Schrodinger wave equation
		CO 4	Understand the application of Schrodinger equation into potential well, barrier
		CO 5	Analyze the basic functions of eigen values and eigen functions
16SMBEPH2	MICROPROCESSOR AND C PROGRAMMING	CO 1	The basic concepts of fundamentals of operators and expressions
		CO 2	Analyze the relationship between various statements
		CO 3	Analyze the various types of function
		CO 4	Perform the different types of arrays
		CO 5	Understand the structure and unions
16SMBEPH3	COMMUNCATION PHYSICS	CO 1	Understand and apply communication theory
		CO 2	Critically think about communication processes and messages.
		CO 3	Write effectively for a variety of contexts and audiences
		CO 4	Interact skillfully and ethically.
		CO 5	Understand the electromagnetic radiation we use to transmit data with fiber optics