PHYSICS

COURSE OUTCOMES

YEAR	SEMESTER	COURSE CODE	TITLE OF PAPER	OUTCOMES
I	I	1	Essentials And Application Of Mathematical Physical and Chemical sciences	Apply critical thinking skill to solar complex problems involving complex numbers trigonometric ratios vectors and statistical measures
		2	Advances in mathematical physical and chemical sciences	To explain the basic principles and concepts underlying a board range of fundamental areas of physics and to connect their knowledge of physics to every situations
	II	3	Mechanics and properties of matter Mechanics and properties of matter practical course	Students will be able to apply the laws of motion solve equations of motion for variable mass systems
		4	Waves and oscillations Waves and oscillations practical course	To describe the basic characteristics of waves such as frequency wavelength amplitude period and speed To utilize mathematical relationship related to wave characteristics
II	III	5	Optics Optics practices course	Distinguish between Fresnel diffraction and fraunhoffer diffraction and observe the diffraction. Explain the various methods of production of plans circularly and polarized light and their and detection
		6	Heat and thermodynamics Heat and thermodynamics practical course	Develop critical understanding of concept of thermodynamic potentials the formulation of maxwell equations and its applications Examine the nature of black body radiations and the basic theories

		7	Electronic devices and circuits Electronic devices and circuits practical course	Analyze and compare the characteristics and operation of different BJT configuration [CB,CE, and CC] and demonstrate proficiency in biasing techniques
		8	Analog and digital electronic Analog and digital electronics practical course	• Understand principles and working of operational amplifier \ • Apply their knowledge on OP-amp in different application • To understand the number system binary codes and complements
	IV	9	Electricity and magnetics Electricity and magnetism practical course	To learn the methods used to solve problems using loop analysis nodal analysis thvenin's theorem nortom's theorem and the superposition theorem
		10	Moden physics Modern physics practical course	• Understand the principles of atomic structure and spectroscopy • Understand the principles of molecular structure and spectroscopy • Develop critical understanding of concept of matter waves and uncertainty principle
		11	Introduction to nuclear and particle physics Introduction to nuclear and particle physics practical course	Students can show the potential shapes from nucleon- nucleon interactions Students can explain the single particle model its strengths and weaknesses
III	V	12	Applications of electricity & electronic Applications of electricity & electronic practical course	Identify various components present in electricity & electronics laboratory Acquore a critical knowledge of each component and its utility (like resistors capacitors inductors , power sources ect)

		13	Electronic instrumentation Electronic instrumentation practical course	Identify various facilities required to set up a basic instrumentation laboratory Acquire acritical knowledge of various electrical instruments in the laboratory
		14A	Optical instruments and Optometry Optical instruments and Optometry practical course (OR)	Understand the various techniques in optometry and computer based eye testing Comprehend the various applications of microscopes and telescopes
		14B	Optical imaging and photography Optical imaging and photography practical course	Identify the different type of cameras and camara lenses according to different purposes Identify and understand the focus length of the different types of lenses
	V	15 A	Low temperature physics & refrigeration practical course (OR)	Identify various methods and techniques used to produce low temperatures in the laboratory
		15 B	Solar energy and applications Solar energy and application practical course	Understand sun structure forms of energy coming from the sun and its measurement Acquire acritical knowledge on the working of thermal and photovoltaic collectors
	VI	INTERNSHIP		