

Program outcomes, Course outcomes for II BSc and III BSc

PROGRAMME: B.Sc., (Physics, Chemistry, Mathematics)

B.Sc., (Physics, Mathematics, Computer science)

Programme Code	Program Outcomes
BSC1	Demonstrate proficiency in mathematics and mathematical concept needed for proper understanding of Physics.
BSC2	Develop and understand value Of Mathematical proof and demonstrate proficiency in writing and understanding proofs.
BSC3	The programme makes the students ready to take up jobs in various sectors such as research firms ,healthcare industry, chemical industry, testing laboratories, Software Company,banks,etc.
BSC4	Demonstrate the ability to justify and explain their Thinking and/or approach.
BSC5	Students are expected to have an understanding of the Analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
BSC6	Student areas expected to develop written and oral Communication skills in science and mathematics related topics.
BSC7	Students are able to analyze in organic and organic Molecules.
BSC8	The programme develops the team spirit and co-ordination in students through Experiential and investigative laboratory learning.
BSC9	Develop laboratory skills and professional Communication skills.
BSC10	Appreciate the role of chemistry in the society.
BSC11	The ability to understand, analyze and develop software programs in the areas related to system software,webdesign,applicationprogram,database,graphicsandnetworking for efficient design of technology of varying complexity

BSC12	Students will use effective technology appropriately, such as PowerPoint, slides, posters, handouts, and transparencies in oral presentations.
BSC13	Develop personal skills such as the ability to work both independently and in a group.
BSC14	Acquire academic abilities, personal qualities and transferable skills, which will give the main opportunity to develop as responsible citizens.

COURSE OUTCOMES FOR THIRD SEMESTER (CBCS)

PAPER TITLE: ELECTRICITY AND MAGNETISM

CO-1: Be able to solve a variety of problems related to Maxwell's equations and explain term displacement current.

CO-2: Know in depth the response of CR, LC, CR and LCR circuits to AC, which is essential in designing as well as understanding the working of electronic circuits

CO-3: Be able to solve the problems related to growth and decay of DC current in RL, RC and LCR circuits

CO-4: Learn construction & working CRO and its use in measurement of voltage, frequency and phase.

CO-5: Know the thermodynamic theory of thermoelectric effect, laws of intermediate metals and temperature.

COURSE OUTCOMES FOR FORTH SEMESTER (CBCS)

PAPER TITLE: OPTICS AND SPECTROSCOPY

CO-1: Understand the basic concepts of wave optics and learn very important and fascinating areas of interference, diffraction and polarization with many experiments associated with it.

CO-2: Become familiar with molecular spectroscopy and have gained basic ideas regarding vector model of atom, spin orbit interaction, Zeeman Effect, Raman Effect.

CO-3: Appreciate the results of Stern-Gerlach experiment, Franck-Hertz experiment, Thomson experiment to determine specific charge of an electron and Millikan's oil drop experiment to determine charge of an electron

CO-4: Understand the basic principles of working of He-Ne, ruby laser and various applications of laser in different fields.

COURSE OUTCOMES FOR FIFTH SEMESTER (CBCS)
PAPER TITLE: NUCLEAR AND THEORETICAL PHYSICS (DSE)

CO-1: Become familiar with special theory of relativity and theory of relativity and principle of equivalence

CO-2: Acquire the knowledge about cosmic rays and elementary particles and basic interactions

CO-3: We able to analyze the accelerators like cyclotron and betatron and nuclear models

CO-4: Understand about the matter waves and Schrödinger's wave equation

COURSE OUTCOMES FOR FIFTH SEMESTER (CBCS)
PAPER TITLE: LASER AND FIBER OPTICS (SEC)

CO-1: Familiarize about laser basics, types of laser, laser oscillator and mode operation

CO-2: Learn laser diodes, lasing condition and gain

CO-3: Able to differentiate fiber optics and wave guides optic fiber, optical power

COURSE OUTCOMES FOR SIXTH SEMESTER (CBCS)

PAPER TITLE: SOLID STATE PHYSICS (DSE)

CO-1: Acquire basic knowledge of semiconductor, classification of solid on the basis band gap theory, concept of hole in a semiconductor, charge carrier density, mobility and continuity equation

CO-2: Learn how LED and solar cell work

CO-3: Know the physics behind Dia, Para and ferromagnetism

CO-4: Familiarize with different types of liquid crystal, its uses and defects in solids

CO-5: Acquire knowledge of different types of polarisability, classical and quantum theories of polarisability.

COURSE OUTCOMES FOR SIXTH SEMESTER (CBCS)

PAPER TITLE: OPTOELECTRONIC (SEC)

CO-1: Gain the knowledge about optical process in a semiconductor & understand the organic optoelectronic devices

CO-2: Acquire basic knowledge about photo detectors, types of photo diodes, photoconductive detectors

CO-3: Understand about photovoltaic devices, solar cell, organic photovoltaic diodes