PROGRAM /COURSE OUTCOME

Programme with code- BSc Physics

Outcome of the Program: Provide a firm foundation in every aspect of physics, explain a broad spectrum of modern trends in physics and develop experimental, Computational and mathematics skill of students.

Course during the Program with code	Course outcome
PH1CRT01 - Methodology and Perspectives of Physics	Course will introduce the pursuit of Physics, its history and methodology. The course will also introduce the importance of measurement which is central to physics.
Core Practical I: PH2CRP01 Mechanics and Properties of Matter	The practical's of I and II semester helps the student to learn the theories they learned in mechanics through experiments. And will get familiarized with experiments in fluid dynamics.
PH2CRT02 – Mechanics and Properties of Matter	Empower the student to acquire engineering skills and practical knowledge, which help the student in their everyday life. Student will get a theoretical basis for doing experiments in related areas.
Core Practical I: PH2CRP01 Mechanics and Properties of Matter	The practical's of I and II semester helps the student to learn the theories they learned in mechanics through experiments.
PH3CRT03 – Optics, Laser and Fibre Optics	Provide necessary foundation in optics and photonics and prepare the students for an intensive study of advanced topics at a later stage.
Core Practical II: PH4CRP02 Optics and Semiconductor Physics	With the experiments in optics using apparatus like spectrometer, prism, grating etc the students get an opportunity to learn the theory by doing and the experiments in electronics introduces the student how to set up a circuit and how to analyse it.
PH4CRT04- Semiconductor Physics	The physical principles and applications of Electronics are learned.
PH4CRP02- Optics and Semiconductor Physics	Expertise the students to do experiments in optics and semiconductor Physics.
PH5CRT05- Electricity and Electrodynamics	Students will understand about alternative current, Network Theorems, Transient Current, Thermoelectricity, Electron and Magneto statics and Maxwell's equation.
PH5CRT06- Classical and Quantum Mechanics	Student will Learn about Lagrangian, Hamiltonian formulations, development and origin of quantum theory, general formalism of Quantum Mechanics, Schrodinger equation and its applications.
PH5CRT07- Digital Electronics and Programming	Familiarize with Boolean algebra, Logic gates

	combinational, sequential logic and programming in C^{++}
PH5CRT08- Environmental physics and Human Rights	Encourage the students to research and investigate about environment related issues and give awareness about human rights.
PH50PTO2- Physics in daily life	Provides knowledge about Units, Light, Motion, Electricity, Matter, Energy and Universe.
PH6CRTO9- Thermal and Statistical Physics	Students will understand about equation of state for gases, Laws of thermodynamics, Thermodynamic relations statistical mechanics and distributions.
PH6CRT10- Relativity and spectroscopy	Learn about special theory of relativity, basic principles of atomic, molecular, NMR and ESR spectroscopy.
PH6CRT11- Nuclear, Particle and Astrophysics	Learn about nuclear structure, radiation detectors, counters, particle accelerators, transformations, cosmic rays, particle physics and Astrophysics.
PH6CRT12- Solid State Physics	Student will understand about crystal structure bonding in solids, Free electron and band theory, semiconductor dielectric and magnetic properties of materials and super conductivity.
PH6CBT01- Choice Based Course - Information Technology	Learn about information technology, tools available in Internet and the world wide web.
Core Practical III: PH6CRP03- Electricity, Magnetism and laser	Students will get skills in doing experiments in electricity, magnetism and laser.
Core Practical IV: PH6CRP04- Digital Electronics	The student will learn to do experiments using logic gates, transistor IC 555 and IC 741.
Core Practical V: PH6CRP05- Thermal Physics, Spectroscopy and C++ programming	Expertise the students to do experiments in thermal Physics, Spectroscopy and C^{++}
Core Practical VI: PH6CRP06- Acoustics, Photonics and Advanced Semiconductor Physics	Students will be able to do experiments in acoustics, Photonics and advanced semiconductor Physics.
PH6PRO01- Project and Industrial Visit	Students will be done project in their core areas of study and visited an industrial area.
PH1CMT01: Properties of Matter & Error Analysis	Provides knowledge in basic errors that may occur in while taking measurements and their propagation in mathematical calculations. Also helps to understand the basic Physics behind many daily life applications of mechanics.
PH2CMP01: Practical 1	The student will learn to setup basic experiments in mechanics, electricity and electronics and get expertise in doing calculations.
PH2CMT01: Mechanics and Astrophysics	Imparts basic knowledge of mechanics and mathematical tools and will cater into the basic requirements for his/her higher studies.
PH2CMP01: Practical 1	The student will learn to setup basic experiments in mechanics, electricity and electronics and get expertise in doing calculations.
PH3CMT01: Modern Physics and Electronics	Introduces the topics of quantum mechanics, spectroscopy and the basic principles of electronics
PH4CMP01: Practical 2	Experiments in optics, electricity and magnetism and electronics helps the student to understand the essence of theories they learned in Physics and will

	provide a stepping stone in further research activities.
PH4CMT01: Optics & Electricity	The student will get familiarized to the topics of interference, diffraction, polarization, laser, fibre optics and also will understand the basics of electricity.
PH4CMP01: Practical 2	Experiments in optics, electricity and magnetism and electronics helps the student to understand the essence of theories they learned in Physics and will provide a stepping stone in further research activities.
PH1CMT02: Properties of Matter and Thermodynamics	Course will provide a theoretical basis for doing experiments in related areas.
PH2CMP02: Practical 1	The student will learn to setup basic experiments in mechanics, electricity and electronics and get expertise in doing calculations.
PH2CMT02: Mechanics and Superconductivity	Introduces the topics of elasticity and its daily life applications. Also the students get exposure to the advanced topics of science.
PH2CMP02: Practical 1	The student will learn to setup basic experiments in mechanics, electricity and electronics and get expertise in doing calculations.
PH3CMT02: Modern Physics and Magnetism	The course will cater the basic requirements for their higher studies.
PH4CMP02: Practical 2	Experiments in optics, electricity and magnetism and electronics helps the student to understand the essence of theories they learned in Physics and will provide a stepping stone in further research activities.
PH4CMT02: Optics and Solid State Physics	The learner will acquire basic knowledge in optical phenomena such as interference, diffraction etc and its real life applications. Also the course introduces the concepts of crystal structure.
PH4CMP02: Practical 2	Experiments in optics, electricity and magnetism and electronics helps the student to understand the essence of theories they learned in Physics and will provide a stepping stone in further research activities.