

Department of Physics

Outcomes of the Physics Courses taught in the B Sc Programme

Class	Course	Course Outcomes
F.Y.B.Sc Sem-I	PHY-101: Basic Mechanics	<ul style="list-style-type: none">❖ Apply the concept of use of knowledge of mechanics to real life problems❖ The students would learn about the behaviour of physical bodies it provides the basic concepts related to the motion of all the objects around us in our daily life❖ The velocity and acceleration parameter give the knowledge about how the vehicles Move❖ Understanding of the course will create scientific temperament
F.Y.B.Sc Sem-I	PHY-102: Dynamics and Elasticity Mechanics	<ul style="list-style-type: none">❖ To make the students to understand the dynamics involved in a rigid body.❖ Study the behaviour of rigid body dynamics❖ Students will understand the dynamics involved in a rigid body.❖ Learn how Young's modulus and rigidity modulus are defining and how they are evaluated for different shapes of practical relevance
F.Y.B.Sc Sem-II	PHY-201 :Electricity and	<ul style="list-style-type: none">❖ Gain knowledge of Gauss laws and solve the electric field for various geometric objects❖ To understand the basic concepts of Electric field and Electric Potential

	Electrostatics	
F.Y.B.Sc Sem-II	PHY-202: Dielectrics, Magnetism and Electromagnetis m	<ul style="list-style-type: none"> ❖ Enable to understand the concept of magnetic field. ❖ Understand the faradays laws of electromagnetic induction ❖ • Thorough knowledge in the basic concept of electromagnetic induction ❖ Able to derive the Maxwell's equation in free space and material media Department of Physics 5. S.Y.B. Sc Sem-III ❖ Understand the concept of thermodynamics and their laws
S.Y.B.Sc Sem-III	PHY-301: Thermodynamic s and Kinetic theory of gases	<ul style="list-style-type: none"> ❖ Understand the concept of thermodynamics and their law ❖ Understand the Heat Engine and there uses ❖ Describe the thermodynamic function and their relations ❖ To study Maxwell Relations and Application.
S.Y.B.Sc Sem-III	PHY-302 (A): Electronics –I	<ul style="list-style-type: none"> ❖ Make them to Understand the basics of diode and working of rectifier circuits and characteristics ❖ Analyse the characteristics of transistor and transistor biasing circuits ❖ Make them understand the basic knowledge of semiconductor physics ❖ Understand the fundamentals of codes and number system Understand the binary arithmetic, logics and Boolean functions.
S.Y.B.Sc Sem-III	304: Skill Enhancement Course	<ul style="list-style-type: none"> ❖ To know the need of renewable energy resources, historical and latest developments ❖ Describe the use of solar energy and the various components used in the energy production with respect to applications like - heating, cooling, desalination, power generation, drying, cooking etc ❖ Appreciate the need of Wind Energy and the various components used in energy generation and know the classifications. Understand the concept of Biomass energy resources.
S.Y.B.Sc Sem-IV	PHY 401: Waves, Oscillations and Acoustics	<ul style="list-style-type: none"> ❖ Apply the concept of use of use of knowledge of Waves and Sound to real life problems ❖ Familiarise with general terms in acoustics like intensity, loudness, reverberation etc, and study in detail about production, detection, properties and uses of ultrasonic waves
		<ul style="list-style-type: none"> ❖ Understand the natural behaviour of aberration in lens ❖ Study the theory and experiment of interference

S.Y.B.Sc Sem-IV	PHY 402: Optics and LASERS	<p>using air wedge, newtons rings etc</p> <ul style="list-style-type: none"> ❖ Study the theory of diffraction by Fresnel's and Fraunhofer methods ❖ Study the theories for production of polarization of light ❖ Explain different Laser used and make a comparison between them ❖ Apply the gained basic knowledge of laser and working of different type of lasers.
S.Y.B. Sc Sem-IV	PHY 404: Electrical Circuits and Network Skills	<ul style="list-style-type: none"> ❖ After the completion of the course the student will acquire necessary skills/ hands on experience /working knowledge on millimetres, voltmeters, ammeters, electric circuit elements, dc power sources, ac/dc generators, inductors, capacitors, transformers, single phase and three phase motors, interfacing dc/ac motors to control and measure, relays and basics of electrical wiring. ❖ Study circuits in a systematic manner suitable for analysis and design ❖ Analyse the electric circuit using network