

Department of Physics

Learning Outcomes of physics

1. Knowledge, understanding and use of the principles of physics.
2. Ability to use reasoning and logic to define a problem in terms of principles of physics.
3. Ability to use mathematics and computer applications to solve physics problems.
4. Ability to design or conduct experiments and observations using principles of physics.
5. Ability to properly analyze and interpret data and experimental uncertainty in order to make meaningful comparisons b/w experimental measurements or observation and theory.

Paper-I Mechanics

1. The students will introduce the forces of angular momentum and knowledge about the constraint.
2. The course will give knowledge about the general parameters like velocity, acceleration.
3. The course provide the students about the knowledge of M.I
4. The course provide the students about the knowledge of hollow cylinder
And a solid cylinder.
5. An ability to acquire and apply new knowledge as needed using appropriate learning strategies.

Paper- II Thermal Physics

1. Understand the concept of heat and temperature.
2. Know the absolute scale of temperature
3. Understand the thermal energy and the thermal equilibrium.
4. Classification of expansion of substances.
5. Know the fundamental laws of gasses.
6. Distinguish b/w real gas and ideal gas

7. Derive the ideal gas equation.

8. Solve the numerical problems

Paper-III Electromagnetic Theory

1. To introduce the basic mathematical concepts related to electromagnetic vector fields.
2. To impart knowledge on the concepts of electrostatics, electric potential, energy density and their applications.
3. To impart knowledge on the concepts of magnetostatics, magnetic flux density, scalar and vector potential and its applications.
4. To impart the concepts of Faraday's law, induced emf and Maxwell's equations.
5. To provide laboratory exposure to electromagnetic principles and applications.

Paper- IV Waves & Optics

1. To impart the skills to identify and apply formulas of optics and wave physics.
2. To introduce the basic properties of light like reflection, refraction, interference, diffraction, polarization etc..
3. To provide the applications of interference, diffraction, polarization.
4. To impart the knowledge of Resolving power of different optical instruments
5. To impart the knowledge of transverse waves.

Paper-V Modern Physics

1. To provide the knowledge and difference b/ w Atomic and Molecular Spectroscopies.
2. To understand the concept of Quantum physics & Nuclear physics.
3. Derive the Schrodinger time dependent & independent wave equations.
4. To understand the dual nature of matter
5. To build critical thinking, analytical reasoning and problem solving skills.

Paper-VI Electronics

1. To Familiarize students with various Electronic devices and their specifications.
2. Develop skill for Design and Testing of different types of Electronic subsystems using Analog and Digital IC'S
3. Familiarize students with the PCB layout tool to prepare PCB print for assigned projects.
4. Develop skills of writing a structured technical document for a project and its presentation.
5. Develop ability to diagnose faults and their rectification.

Dept of Physics

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