

## **Course Outcomes**

### **B. Sc F.Y. (Semi- I) (Paper – I)**

**Course Code – PHY-101-Mechanics, Properties of Matter and Sound**

**CO-1 :** Study of Mechanics, gravitational, potential field.

**CO-2 :** Introduction of Elasticity and study of elastic material.

**CO-3 :** Understanding Viscosity and surface tension of liquids.

**CO-4 :** Study Ultrasonic sound and its applications and Acoustics.

### **B. Sc F.Y. ( Semi -I) (Paper – II)**

**Course Code – PHY-102-Heat and Thermodynamics**

**CO-1 :** introduce about Thermal Conductivity of different , materials.

**CO-2 :** Learn about Real gases and Transport Phenomena.

**CO-3 :** Understand Thermodynamics and Thermo dynamical processes.

**CO-4 :** Introduction to entropy and Thermo dynamical relations.

### **B. Sc F.Y. ( Semi - II) (Paper – IV)**

**Course Code – PHY-104-Geometrical and Physical Optics**

**CO-1 :** Review about Geometrical optics and optical instruments.

**CO-2 :** Study interference phenomena of light and different experiments.

**CO-3 :** Concept of diffraction of light and its types.

**CO-4 :** Polarization of light and its applications.

### **B. Sc F.Y. ( Semi-II) (Paper – V)**

**Course Code – PHY-105-Electricity and Magnetism**

**CO-1 :** Need of Vector Algebra in electricity and magnetism.

**CO-2 :** Study Electrostatics and related laws.

**CO-3 :** Introduction of Magneto statics and related laws and applications.

**CO-4 :** Concept of Transient current and study of L-C-R.

- **Three theory periods per paper per week.**
- **Three practical periods per paper per week**

**B. Sc S.Y. ( Semi-III) (Paper – VII)**

**Course Code –PHY-201-Mathematical, Statistical Physics and Relativity.**

**CO-1 :** Study about Differential and Ordinary Differential equation.

**CO-2 :** Introduction of Statistical basis and Classical statistics, and distribution laws.

**CO-3 :** Understanding of Quantum Statistics and concept of Fermi Gas

**CO-4 :** Theory of Relativity, Relativistic transformation equations.

**B. Sc S.Y. ( Semi-III) (Paper – VIII)**

**Course Code –PHY-202-Modern and Nuclear Physics.**

**CO-1 :** Introduce about Photoelectric Effect and its applications.

**CO-2 :** Learn about X-Rays , Bragg's law , X-ray spectrum and its applications.

**CO-3 :** Understand Nuclear Forces and Nuclear Models.

**CO-4 :** Types of Particle, Accelerators and Detectors.

**B. Sc S.Y. ( Semi-IV) (Paper – XI)**

**Course Code –PHY-205- General Electronics.**

**CO-1 :** Review Semiconductor Effect and its applications.

**CO-2 :** Study transistor biasing , its types, Amplifiers and its applications.

**CO-3 :** Concept of Oscillator and Multi vibrator and their types.

**CO-4 :** Introduce about Modulations, its types and demodulation.

**B. Sc S.Y. ( Semi-IV) (Paper – XII)**

**Course Code – PHY-206- Solid State Physics.**

**CO-1 :** introduction to crystal structure and its types.

**CO-2 :** Study of Bonding and Bond theory of solids.

**CO-3 :** Study an Thermal properties of solid.

**CO-4 :** Study about Free Electron theory and metals and Transport Properties.

**B. Sc T.Y. ( Semi-V) (Paper – XV)**

**Course Code –PHY-301- Classical and Quantum Mechanics**

**CO-1 :** Introduction of Classical Mechanics and its application.

**CO-2** : Study of Quantum theory.

**CO-3** : Learn about de-Broglie's hypothesis, Davidson – German expert, Heisenberg Uncertainty principle

**CO-4** : Introduce about Modulations, its types and demodulation.

**B. Sc T.Y. ( Semi-V) (Paper – XVI)**

**Course Code –PHY-302- Electrodynamics.**

**CO-1** : Introduction to Electrodynamics

**CO-2** : Study of Time Varying Fields.

**CO-3** : Study of Electromagnetic Waves.

**CO-4** : Introduction of Electromagnetic Wave with Matter.

**B. Sc T.Y. ( Semi-VI) (Paper – XIX)**

**Course Code –PHY-305- Atomic , Molecular physics and LASER**

**CO-1** : Study of Atomic models

**CO-2** : Introduction to vector atom model

**CO-3** : Study of Molecular Spectra.

**CO-4** : Introduction to LASER, Its type and Applications.

**B. Sc T.Y. ( Semi-VI) (Paper – XX)**

**Course Code –PHY-306- Non-conventional Energy Sources and Optical Fiber**

**CO-1** : Study of Non-conventional Energy Sources.

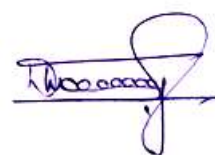
**CO-2** : Introduction and Study of photovoltaic system.

**CO-3** : Introduction of Optical Fiber.

**CO-4** : Study on Fiber Cable and Fabrications.



Head  
Department of Physics



Principal