

## Mizoram University

### Physics Syllabi

- Rotational Motion
- Gravitation
- Properties of Solids and Liquids
- Thermodynamics
- Work, Energy and Power
- Current Electricity
- Magnetic Effects of Current and Magnetism
- Kinetic Theory of Gases
- Oscillations and Waves
- Electrostatics
- Physics and Measurement
- Kinematics
- Laws of Motion
- Electromagnetic Waves
- Optics
- Dual Nature of Matter and Radiation
- Atoms and Nuclei
- Electronic Devices
- Communication Systems
- Electromagnetic Induction and Alternating Currents

### Chemistry

- Basic Concepts in Chemistry
- Equilibrium
- Redox Reactions and Electrochemistry
- Chemical Kinetics
- Surface Chemistry
- Classification of Elements and Periodicity in Properties

- General Principle and Processes of Isolation of Metals
- Hydrogen
- Chemical Thermodynamics
- Solutions
- P – Block Elements
- d – and f – Block Elements
- Co-ordination Compounds
- Environmental Chemistry
- Purification and Characterization of Organic Compounds
- Basic Principles of Organic Chemistry
- Hydrocarbons
- Organic Compounds Containing Halogens
- Organic Compounds Containing Oxygen
- Alcohols, Phenols and Ethers
- Organic Compounds Containing Nitrogen
- Polymers
- Biomolecules
- Chemistry in Everyday Life
- Principles Related to Practical Chemistry
- S – Block Elements (Alkali and Alkaline Earth Metals)
- States of Matter
- Atomic Structure
- Chemical Bonding and Molecular Structure

## **Mathematics**

- Limit, continuity and differentiability
- Statistics and probability
- Matrices and determinants
- Integral calculus
- Trigonometry
- Permutations and combinations
- Differential equations

- Sets, relations and functions
- Sequences and series
- Mathematical induction
- Coordinate geometry
- Binomial theorem and its simple applications
- Vector algebra
- Complex numbers and quadratic equations
- Mathematical reasoning
- Three dimensional geometry