Syllabus

The syllabus generally follows the NCERT syllabus for classes XI and XII.

Biology

- Diversity in the living world
- Structural organization in animals and plants
- Cell structure and function
- Plant and Animal physiology
- Human physiology
- Reproduction
- Genetics and evolution
- Biology and human welfare
- Biotechnology and its application
- Ecology and environment

Chemistry

- Structure of the Atom
- Classification of Elements and Periodicity in Properties
- Chemical Bonding and Molecular Structure
- States of Matter
- Thermodynamics
- Equilibrium
- Redox Reactions
- Hydrogen
- The s-block Elements
- The p-block Elements
- Organic Chemistry – Some Basic Principles and Techniques
- Hydrocarbons
- Environmental Chemistry
- The solid state
- Solutions
- Electrochemistry
- Chemical Kinetics
- Surface chemistry
- General principles and processes of isolation of elements
- The d- & f-block elements
- Coordination compounds
- Haloalkanes and haloarenes
- Alcohols, phenols and ethers
- Aldehydes, ketones and carboxylic acids

- Organic compounds containing nitrogens
- Biomolecules
- Polymers
- Chemistry in everyday life

Mathematics

- Sets
- Relations and functions
- Trigonometric Functions
- Inverse Trigonometric Functions
- Principle of Mathematical Induction
- Complex Numbers and Quadratic Equations
- Linear Inequalities
- Permutations and Combinations
- Binomial Theorem
- Sequences and Series
- Straight Lines
- Conic Sections
- Three Dimensional Geometry
- Limits and Derivatives
- Mathematical Reasoning
- Statistics
- Probability
- Matrices
- Determinants
- Continuity and Differentiability
- Application of Derivatives
- Integrals
- Applications of integrals
- Differential equations
- Vectors
- Linear Programming

Physics

- Physical World and Measurement
- Kinematics
- Laws of Motion
- Work, Energy and Power
- Motion of Systems of Particles and Rigid body
- Gravitation
- Properties of bulk matter
- Thermodynamics
- Behavior of perfect gas and kinetic energy
- Oscillations

- Waves
- Electrostatics
- Current Electricity
- Magnetic effect of current and magnetism
- Electromagnetic Induction
- Alternating Current
- Electromagnetic Waves
- Optics
- Dual Nature of Radiation and Matter
- Atoms
- Nuclei
- Electronic devices
- Communication Systems