

# Class 12 (Std XII) PCMB Syllabus — Maharashtra Board

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Maharashtra State Board — Standard XII (HSC) Science. Physics, Chemistry, Mathematics and Biology (PCMB) outline. This carries the highest weightage in MHT-CET.

## Physics (XII)

- Rotational Dynamics
- Mechanical Properties of Fluids
- Kinetic Theory of Gases and Radiation
- Thermodynamics
- Oscillations
- Superposition of Waves
- Wave Optics
- Electrostatics
- Current Electricity
- Magnetic Fields due to Electric Current
- Magnetic Materials
- Electromagnetic Induction
- AC Circuits
- Dual Nature of Radiation and Matter
- Structure of Atoms and Nuclei
- Semiconductor Devices

## Chemistry (XII)

- Solid State
- Solutions
- Ionic Equilibria
- Chemical Thermodynamics
- Electrochemistry
- Chemical Kinetics
- Elements of Groups 16, 17 & 18
- Transition and Inner Transition Elements
- Coordination Compounds
- Halogen Derivatives
- Alcohols, Phenols and Ethers

- Aldehydes, Ketones and Carboxylic Acids
- Amines
- Biomolecules
- Introduction to Polymer Chemistry
- Green Chemistry and Nanochemistry

## Mathematics (XII)

- Mathematical Logic
- Matrices
- Trigonometric Functions
- Pair of Straight Lines
- Vectors
- Line and Plane
- Linear Programming
- Differentiation
- Applications of Derivatives
- Indefinite Integration
- Definite Integration
- Application of Definite Integration
- Differential Equations
- Probability Distributions
- Binomial Distribution

## Biology (XII)

- Reproduction in Lower and Higher Plants
- Reproduction in Lower and Higher Animals
- Inheritance and Variation
- Molecular Basis of Inheritance
- Origin and Evolution of Life
- Plant Water Relations
- Plant Growth and Mineral Nutrition
- Respiration and Circulation
- Control and Co-ordination
- Human Health and Diseases
- Enhancement in Food Production
- Biotechnology
- Organisms and Populations
- Ecosystems and Energy Flow