The Joint Entrance Examination (JEE) syllabus is extensive, covering subjects like Physics, Chemistry, and Mathematics. Here's a detailed overview:

Physics

1. **Class 11**
    - **Physical World and Measurement**
    - **Kinematics**
    - **Laws of Motion**
    - **Work, Energy, and Power**
    - **Motion of System of Particles and Rigid Body**
    - **Gravitation**
    - **Properties of Bulk Matter**
    - **Thermodynamics**

- Behavior of Perfect Gas and Kinetic Theory
- Oscillations and Waves

2. Class 12
    - Electrostatics
    - Current Electricity
    - Magnetic Effects of Current and Magnetism
    - Electromagnetic Induction and Alternating Currents
    - Electromagnetic Waves
    - Optics
    - Dual Nature of Matter and Radiation
    - Atoms and Nuclei
    - Electronic Devices

Chemistry

1. Class 11
    - Basic Concepts of Chemistry
    - Structure of Atom
    - Classification of Elements and Periodicity in Properties
    - Chemical Bonding and Molecular Structure
    - States of Matter: Gases and Liquids
    - Thermodynamics
    - Equilibrium
    - Redox Reactions
    - Hydrogen
    - s-Block Element (Alkali and Alkaline Earth Metals)

- Some p-Block Elements
- Organic Chemistry - Some Basic Principles and Techniques
- Hydrocarbons
- Environmental Chemistry

2. Class 12
    - Solid State
    - Solutions
    - Electrochemistry
    - Chemical Kinetics
    - Surface Chemistry
    - General Principles and Processes of Isolation of Elements
    - p-Block Elements
    - d and f Block Elements

- Coordination Compounds
- Haloalkanes and Haloarenes
- Alcohols, Phenols, and Ethers
- Aldehydes, Ketones, and Carboxylic Acids
- Organic Compounds Containing Nitrogen
- Biomolecules
- Polymers
- Chemistry in Everyday Life

Mathematics

1. Class 11
    - Sets and Functions
    - Trigonometric Functions

- Complex Numbers and Quadratic Equations
- Linear Inequalities
- Permutations and Combinations
- Binomial Theorem
- Sequences and Series
- Straight Lines and Conic Sections
- Introduction to Three-Dimensional Geometry
- Limits and Derivatives
- Mathematical Reasoning
- Statistics and Probability
- Mathematical Induction and Binomial Theorem

2. Class 12
    - Relations and Functions
    - Inverse Trigonometric Functions
    - Matrices and Determinants
    - Continuity and Differentiability
    - Application of Derivatives
    - Integrals
    - Differential Equations
    - Vector Algebra
    - Three-Dimensional Geometry
    - Linear Programming
    - Probability
    - Statistics

Preparation Tips

- Focus on NCERT textbooks as they align closely with the syllabus.
- Practice previous years' question papers and take mock tests.
- Understand concepts thoroughly rather than rote memorization.

This syllabus provides a comprehensive roadmap for JEE preparation. Make sure to check for any updates or changes from official sources.