

**Dept. of Chemistry**

**Course Outcome**

**B. Sc. Chemistry, 3 years (Six semesters) Course**

Students will develop the following concepts

**Semester I**

Atomic Structure, Bohr's theory, Wave mechanics, Pauli's Exclusion Principle, Periodicity of Elements, Chemical Bonding, Gaseous state, Kinetic molecular model of a gas, Maxwell distribution, Ionic equilibria, Salt hydrolysis-calculation of hydrolysis constant, Solubility and solubility product of sparingly soluble salts

**Semester II**

Basics of Organic Chemistry, Electronic Displacements, Aromatic Hydrocarbons, Fischer Projection, Newmann and Sawhorse Projection formulae and their interconversions, Carbon-Carbon sigma bonds, Carbon-Carbon pi bonds, Chemical Equilibrium, Solutions and Colligative Properties

**Semester III**

Acids and Bases, Chemistry of *s* and *p* Block Elements, Noble Gases, Chemistry of Halogenated Hydrocarbons, Alcohols, Phenols and Epoxides, Carbonyl Compounds, Carboxylic Acids and their Derivatives, Phase Equilibria, Catalysis, Surface chemistry

**Semester IV**

Coordination Chemistry, Transition Elements, Lanthanoids and Actinoids, Nitrogen Containing Functional Groups, Polynuclear Hydrocarbons, Heterocyclic Compounds, Conductance, Electrochemistry

**Semester V**

Nucleic Acids, Amino Acids, Peptides and Proteins, Pharmaceutical Compounds, Quantum Chemistry, Molecular Spectroscopy, Photochemistry

**Semester VI**

Inorganic Polymers, Bioinorganic Chemistry, Catalysis by Organometallic Compounds, Organic Spectroscopy, Ketones, Carbohydrates, Dyes