

CHEMISTRY

COURSE OUTCOMES

Year	Sem	Course Code	Title of the Paper	Outcomes
I	I	1	Essentials and applications of Mathematical, Physical and Chemical sciences	To explain the basic principles and concepts underlying a broad range of fundamental areas of chemistry and to connect their knowledge of chemistry to daily life.
I	I	2	Advances in Mathematical, Physical and Chemical sciences	Understand the principles and techniques used in computer-aided drug design and drug delivery systems, to understand the fabrication techniques and working principles of nanosensors. Explore the effects of chemical pollutants on ecosystems and human health.
I	II	3	General & Inorganic Chemistry	Understand the structure of atom and the arrangement of elements in the periodic table and the nature and properties of ionic compounds.
I	II	4	Inorganic Chemistry-I	Understand the basic concepts of p-block elements, d-block elements, lanthanides and actinides
II	III	5	Fundamentals in Organic Chemistry	Learn and identify many organic reaction mechanisms, Correlate and describe the stereo-chemical properties of organic compounds and reactions
II	III	6	Organic Chemistry (Halogen & Oxygen Organic Compounds)	Understand the concept of SN1 and SN2 and SNi mechanisms, describe the reactivity of alcohols and phenols, achieve the skills required to propose various mechanisms
II	III	7	Physical Chemistry-I	Understand the ideal and non ideal behaviour of solutions, determine the molecular mass of non-volatile solutes, discuss the basic concepts of Photochemistry, apply the principles of electrical conductivity
II	III	8	Inorganic & Physical Chemistry	Apply IUPAC nomenclature for Coordination compounds, understand the various theories, structure and stereo chemistry of coordination compounds and explain the reaction mechanism in complexes, apply the 18 electron rule, discuss the basic concepts of thermodynamics
II	IV	9	Physical Chemistry-II	Explains the difference between solids liquids and gases in terms of intermolecular interactions, differentiate ideal and real gases, discuss the basic concepts of two component systems, apply the concepts of adsorption, understand the basic concepts of crystallography
II	IV	10	General & Physical Chemistry	Correlate and describe the stereochemical properties of organic compounds, apply the concepts of ionic equilibrium for the qualitative and quantitative analysis, determine the order of a chemical reaction and describe the basic concepts of enzyme catalysis
II	IV	11	Nitrogen containing Organic Compounds & Spectroscopy	Understand amines, amides & UV-Visible and IR Spectroscopy of organic compounds
III	V	12B	Environmental Chemistry	Understand environment, pollution, biodiversity & ecology
III	V	13B	Green Chemistry and Nanotechnology	Know the principles of green chemistry, green reactions and nanotechnology
III	V	14A	Synthetic Organic Chemistry	Know the reagents and reactions of organic compounds
III	V	15A	Analysis of Organic Compounds	Understand the chemical analysis of organic compounds