

Course Outcomes of B.Sc. Chemistry				
Course Title	Course Code	Year	COs	Course Outcome
Atomic structure, bonding, general organic chemistry & aliphatic hydrocarbons	CHEM 101	I	CO1	This Course explains various atomic theories, Quantum mechanical model and Quantum numbers.
			CO2	The students learn and understand the preparation, properties and uses of various organic substances.
			CO3	It introduces a framework for learning about electronic configurations of elements, Ionic, covalent bonding and MO theories.
States of Matter and Chemical Kinetics and Functional Organic Chemistry	CHEM 102	I	CO1	It derives and provides a deep understanding about kinetic gas theory and properties of liquids and solids. ☐
			CO2	It describes various method of preparation and chemical properties of carboxylic acids, their derivatives, amines and diazonium salts.
			CO3	It explains thoroughly the structure, properties and uses of Amino acids, Peptides, proteins and Carbohydrates.
Solutions, phase equilibrium, conductance, electrochemistry & organic chemistry	CHEM 201	II	CO1	To develop understanding of ideal and non-ideal solutions, concept of Raoult's Law, drawing phase diagrams of one and two component system.
			CO2	To develop understanding of conductivity, Kohlrausch's law, conductometric titrations.
			CO3	To clear the concept of transference number by Hittorf's method and Moving Boundary method.
			CO4	To clear the basic concepts of electrochemistry including types of electrodes, EMF, concentration cells, Liquid junction potential.
			CO5	Develop critical thinking, problem solving and analytical capabilities.
			CO6	Preparation and reactions of carboxylic acids, their derivatives, concept of nucleophilicity, Aliphatic and aromatic amines, Name reactions and some organic conversions.
Chemistry of main group elements, chemical energetics and equilibria	CHEM 202	II	CO1	This course aims to clear the basic concepts of s block and p block elements of the periodic table, properties and reactions of compounds of these elements.
			CO2	It also explains the potential energy stored in the arrangements or bondings of atoms in a substance.
			CO3	This course is intended to provide students with the basic knowledge of chemical equilibrium and the factors that may affect a chemical equilibrium. It also explains the importance of chemical equilibrium in the day to day life.
Basic analytical chemistry (SEC 1)	CHEM203 (SEC)	II	CO1	This course is designed to introduce the students with Analytical chemistry, Analysis of soil, pH determination of soil. Analysis of water, determination of acidity and alkalinity and dissolved oxygen in sample of water, Introduction to complexometric titrations.

			CO2	The students are introduced to the complete knowledge of Chromatography and analysis of mixture of ions and paint components by chromatographic techniques.
			CO3	Analysis of cosmetics, types of cosmetics, study of phenolphthalein in trap cases and E14arson accelerators, gasoline.
Fuel chemistry & chemistry of cosmetics & perfumes (SEC 2)	CHEM204 (SEC)	II	CO1	It includes the study of energy resources, study of coal, lubricants including types and properties.
			CO2	This course is intended to provide students a general study and knowledge about the preparation of cosmetics and essential oils.
Polynuclear hydrocarbons, Dyes, heterocyclic compounds and spectroscopy (UV, IR, NMR)	CHEM301	III	CO1	This course is expected to provide students a better understanding of the various theories and principles related to UV, IR and NMR spectroscopy.
			CO2	It explains preparation and properties of different types of dyes and heterocyclic compounds.
			CO3	It also provides an understanding of polynuclear hydrocarbons and their comparative properties with respect to benzene.
Chemistry of transition and inner transition elements, organometallic compounds	CHEM 304	III	CO1	Students will have a clear understanding of d and f block elements, their properties and their complex formation tendencies.
			CO2	Students will understand the concept of organometallic compounds and their utility in everyday science.
			CO3	It explains the chemistry of coordination compounds, their bondings, stability and preference of bonding with ligands to give specific geometries.
Polymer Chemistry	CHEM305	III	CO1	Classify various types of polymers.
			CO2	Explain and identify preparation methods, properties and uses of various types of polymers.
Chemical Technology and Society, and business skills for chemistry	CHEM307 (SEC)	III	CO1	It explains the use of chemical technology in society.
			CO2	It provides the understanding of basic business skill in chemistry and explain various terms used in chemical industry.
Pesticides Chemistry and Pharmaceutical Chemistry	CHEM308 (SEC)	III	CO1	Explain the preparation and use of various pesticides and medicines used in our daily life.
			CO2	Explains the preparation and uses of different types of medicines used in our daily life.