Chemistry
COURSE OUT COMES:

SEMESTER I, PAPER I, 4 Credits

The students will learn the following

CO 1: Inculcate industrial applications of carbides, silicones, acidity and reactivity of boron Compounds.

CO 2: Overview of periodic table and P block elements.

CO 3: Detail understanding of various compounds of elements of p-block and theoretical knowledge to perform semi micro analysis i.e. Identification of inorganic salts

CO 4: Understand the concept of nature of chemical bond

CO 5: Understand alkanes, alkenes, alkynes, understand the aromaticity of organic Compounds

CO 6: Understand the concept of stereochemistry. Understand different types of reaction Mechanism

SEMESTER II, PAPER II, 4 Credits

The students will learn the following

CO 1: Understand reactivity and structures of oxides, oxy acids, structures of inter halogen compound zero group elements, d –block elements

CO 2: Understand the structure and chemical bonding and behavior in aryl, alkyl halides, alcohols, phenols and carbonyl compounds

CO 3: Understand the theories and laws of electrochemistry, electrolytic cells, electrochemical cells applications batteries industry. Conductometric titrations, emf etc

CO 4: Volumetric analysis, and gravimetric analysis. Estimation of carbonate, bicarbonate, copper etc

SEMESTER III, PAPER III, 4 Credits

The students will learn the following

CO 1: Understand the chemistry of f-block elements, complex compounds, metal carbonyls and Organo metallic compounds and their applications.

CO 2: Understand the chemistry of carboxylic acids and their derivatives, active methylene compounds and nitro compounds. Industrial and research importance, Importance of carbanions –I

CO 3: Understand the thermodynamics of chemical reactions, phase rule.

CO 4: Laboratory synthesis of some organic compounds.

SEMESTER IV, PAPER IV, 4 Credits

The students will learn the following

CO 1: Student able to understand the reaction mechanism of inorganic complexes, inert and labile nature, bio inorganic chemistry Student able to understand the reaction mechanism of inorganic Complexes, inert and labile nature, bio inorganic chemistry i.e. importance of micro and macro nutrients in human.

CO 2: Student able to understand the chemistry and reactions of carbohydrates, amino acids and Hetero cyclic compounds. Their importance in medical and biological fields, Importance of carbanions –II

CO 3: Student able to understand the chemistry and reactions of carbohydrates, amino acids and Hetero cyclic compounds. Their importance in medical and biological fields, Importance of carbanions –II

CO4: Functional group analysis

SEMESTER V, PAPER V, 4 Credits

The students will learn the following

CO 1: Students are able to determine the functional groups present in molecule structure by applying infrared

CO 2: Students can explain the maximum absorption wavelength by of molecules using UV Spectroscopy and can find out the chemical environment of molecule from chemical shift values of NMR Spectroscopy

CO 3: Students are able to separate the compounds from the given mixture by solvent extraction method and separation techniques.

CO 4: Students determine the concentration of KMno4 Solution by using Colorimetry