Department of Chemisty

COURSE OUTCOMES

After completing the course, students are able to achieve following outcomes

CO 1	Inorganic Chemistry	To Learn about the periodicity of elements. To understand the of S-block elements of alkali and alkaline earth metals. Understand the P-block elements.
CO 2	Organic Chemistry	Understand about the classification and nomenclature of organic compound ,fundamental of organic reaction mechanism, aromaticity and stereochemistry.
CO 3	Lab. Course I	Learn the applications of types of titration. Carry out qualitative analysis of acid and basic radicals.
CO 4	Physical Chemistry	Develop the ability to use conceptual and mathematical concepts. Understand state of matter and chemical kinetics.
CO 5	Inorganic Chemistry	To explain the formation of various bond, geometry, hybridisation. Learn basic concept of nuclear chemistry To learn Noble gases and volumetric analysis
CO 6	Lab. Course II	Estimation of organic compounds. To develop the skill of organic qualitative and quantative analysis.
CO 7	Organic Chemistry	To understand preparation , chemical reactions of alcohols, phenols, aldehydes , ketones, carboxylic acids. To learn about compounds containing nitrogen.
CO 8	Physical Chemistry	Basic terms in thermodynamics, various types of process First laws, Enthalpy, heat capacity, Hess's law To learn need for second law, second law, carnot's cycle,Entropy , Gibb's and Helmholtz function and entropy changes. Law of mass action, Le Chatelier's principle, Clapeyron equation,Claussius equation, Reaction isotherms and isochore.
CO 9	Lab. Course III	To carry out gravemetric analysis To carry out complemetric titration. To carryout non instrumental physical chemistry experiments.

CO 10	Inorganic Chemistry	To understand the general characteristics of first transition series. To understand the basic concepts of coordination compounds. To understand the basic theories of acid and bases To understand the physical properties of non aqueous solvents.
CO 11	Physical Chemistry	To study phase rule for one and multi component systems,Liquid-Liquid mixture, Partially miscible liquids. To learn conductance in metals and electrolyte solution,Kahlrausch law, Arrhenius theory of electrolyte, weak and strong electrolyte, Ostwal's law, Transport number Hittorfs method and moving boundary methods and conductometric titration. To learn types of electrodes, ECE, Corrosion.
CO 12	Lab. Course IV	To carryout quantitative analysis by conductivity bridge, Ph-meter, coulorimeter etc. Preparation of organic compounds and their physical constant. To carryout estimation of organic compounds.
CO 13	Physical Chemistry	To understand the basic concept of spectroscopy technique To learn De- Broglie equation, Heisenburg uncertaintaty principle, Compton effect, photoelectric effect To learn Bohr's theory of H- atoms, postulates of quantum mechanics, various types of operator Understand the basic concepts of laws of photochemistry,Jablonski's diagram To study physical properties and molecular structures of compounds To learn synthesis and uses of nano materials.
CO 14	Organic Chemistry	To study different types of spectroscopic technique and some problems based on these techniques. To understand the formation of of organometallic compounds and their chemical properties. To understand the process of manufacturing of detergents , fats and oils
CO 15	Lab. Course V	Separation and identification of binary organic compounds Inorganic qualitative analysis Volumetric and gravimetric analysis
CO 16	Inorganic Chemistry	To understand the theories of metal ligand bond CFT and its application, types of electronic transitions selection rule for d-d transition and electronic spectra of complex ions to learn the classification of organometallic compounds, prepation and their chemical reactivity

		To learn about biological importance metal ions.
CO 17	Organic Chemistry	understand the basic concepts of polymerization. understand the preparation ,properties and application of PE,PVC,polysterene. understand properties and prepareation of drugs. to learn hetrocyclic compound ex. pyrrol furan thiophene pyridine quinoline isoquinoline and indol. to learn about classification of carbohydrate and prepation chemical properties.
CO 18	Lab. Course VI	organic estimation,organic prepation and it's purity by TLC quantative estimation by instruments exconductivity bridge,Ph-meter,coulorimeter,potentiometer, abbe's refractometer to carryout non instrumental experiments.