



PREM CHAND MARKANDA COLLEGE FOR WOMEN, JALANDHAR CITY

Re-accredited 'A+' grade (2nd Cycle) by NAAC Bangalore

A unique prestigious Post Graduate Institution of Northern India

COURSE OUTCOME

DEPARTMENT- CHEMISTRY

Name of the class-B.Sc(Non-Med.,Computer Sc.)

Semester-Ist

Course/Paper name : Inorganic Chemistry

CO.1	Students will be able to understand atomic structure
CO.2	Students will be able to give reasons for periodicity of elements
CO.3	Students will be able to determine structure of ions and molecules on the basis of VSEPR theory
CO.4	Students will be able to predict structure of ionic solids
CO.5	Students will be able to understand interactions and forces among various molecules

Course/Paper name-Organic Chemistry

CO.1	Students Will be able to predict structure and different bonding in organic compound.
CO.2	Student will learn different mechanism of organic reaction.
CO.3	Student will learn about preparations method and chemical reactions of hydrocarbon
CO.4	Student will know about the alkyl halides and different theories which explain cycloalkanes
CO.5	Student will learn about aromaticity benzene structures and different named reaction with mechanism

Name of the class-B.Sc(Non-Med,Computer Sc.)

Semester-IIInd

Course/Paper name-Inorganic Chemistry

CO.1	Students will be able to define characteristics and properties of elements of 's' block in the periodic table.
CO.2	Students will be able to understand the concept of Acids and Bases.
CO.3	Students will be able to give characteristics properties of elements of p block in the periodic table.
CO.4	Students will learn about various compounds of group 13 and 14 of periodic table.
CO.5	Students will learn about chemistry of Transition elements.

Course/Paper name-Physical Chemistry

CO.1	Students will learn about critical phenomena and molecular velocities.
CO.2	Students will know about the surface tension , viscosity, structure of liquid and liquid crystal lattice.
CO.3	Student will learn about types and application colloids.
CO.4	Student will Able to understand about ideal, non ideal and dilute solutions.
CO.5	Student will learn about different colligative properties of solutions.

Name of the class- B.Sc(Non-Med,Computer Sc.)

Semester-IIIrd

Course/Paper name- Organic Chemistry

CO.1	Students will learn about Stereoisomerism
CO.2	Students will be able to predict stereochemistry of organic molecules
CO.3	Students will understand about the characteristics,physical and chemical properties of Alcohols and Phenols
CO.4	Students will understand about the characteristics,physical and chemical properties of Aldehydes and Ketones
CO.5	Students will learn about various nucleophilic addition reactions

Course/Paper name-Physical Chemistry

CO.1	Students will get to know about different terms of thermodynamics and it's laws
CO.2	Student will able to understand state functions, enthalpy ,entropy in detail.
CO.3	Student will know about Gibbs and Helmholtz function
CO.4	Student will learn about clausius – clapeyron equation and equilibrium constant .
CO.5	Student will learn about applications of thermodynamic and different phase equilibrium

Name of the class-B.Sc(Non-Med,Computer Sc.)

Semester-IVth

Course/Paper name-Inorganic Chemistry

CO.1	Students will learn about Coordination Compounds and their applications
CO.2	Students will learn about Redox Reactions
CO.3	Students will be able to understand characteristics, properties and uses of Lanthanides.
CO.4	Students will be able to understand characteristics, properties and uses of Actinides.
CO.5	Students will be able to understand about role of essential and trace elements in biological processes.

Course/Paper name- Organic Chemistry

CO.1	Student will able to understand synthesis method and chemical reactions of carboxylic acid.
CO.2	Student will get to know how to prepare carboxylic acid derivatives
CO.3	Students will get to learn about ethers epoxide and different heterocyclic compound.
CO.4	Students will be able to prepare different compounds of nitrogen .
CO.5	Student will get to know about the natures of organometallic compound

Name of the class-B.Sc(Non-Med,Computer Sc.)

Semester-Vth

Course/Paper name-Inorganic Chemistry

CO.1	Students will be able to limitations of Valence Bond Theory and idea Crystal field theory
CO.2	Students will be able to understand magnetic properties of Transition Metal Complexes
CO.3	Students will be able to learn about mechanisms of nucleophilic substitution of square planar complexes
CO.4	Students will be able to electronic spectra of Transition Metal Complexes
CO.5	Students will be able to understand nomenclature and classification of Organometallic Compounds

Course/Paper name-

CO.1	Students will learn about electrochemical cell , electrode potential. They will be able to Calculate thermodynamics quantities .
CO.2	Students will learn about radioactivity and laws of radioactivity
CO.3	Students will understand about various nuclear reaction occur inside atom
CO.4	Students will learn about various electromagnetic radiation involve spectroscopy techniques .
CO.5	Students will get to know about rigid and non rigid rotor, isotope effects

Name of the class-B.Sc(Non-Med.,Computer Sc.)

Semester- VIth

Course/Paper name-Organic Chemistry

CO.1	Students will learn about principle and properties of NMR spectroscopy
CO.2	Students will learn about IR spectroscopy and its Selection rules
CO.3	Students will learn about laws of UV spectroscopy
CO.4	Students will be able to solve problems based on spectroscopy
CO.5	Students will be able to classify Carbohydrates, Amino Acids, Proteins and Nucleic Acids

Course/Paper name-Physical Chemistry

CO.1	Students will be able to understand basics of Quantum Mechanics
CO.2	Students will be able to understand Harmonic Oscillator and qualitative investigation of H atom
CO.3	Students will be able to define Space Lattice and Unit Cell
CO.4	Students will be able to understand interaction of radiation with matter and laws of Photochemistry
CO.5	Students will be able to understand radiative and non radiative processes