



**NSCB Memorial Govt. Degree College
Hamirpur
District Hamirpur (H.P.)**



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**Department of Chemistry
Course specific outcome**

Name of Teachers: 1. Dr. R.C. Sharma
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3. Dr. H. S. Jamwal

Class: BSc 2nd year

Subject: Chemistry

Courses: CHEM201TH: Solutions, Phase Equilibrium, Conductance, Electrochemistry and Organic Chemistry.

CHEM202TH: Chemistry of main group elements, Chemical Energetics and Equilibria.

Course Code: CHEM201TH, CHEM201PR
CHEM202TH, CHEM202PR
CHEM203TH & CHEM204TH

CHEM SEC 203TH: Basic Analytical Chemistry

CHEM SEC 204TH: Fuel Chemistry & Chemistry of Cosmetics and Perfumes

Course	Course specific outcome
CHEM 201TH: Solutions, Phase Equilibrium, Conductance, Electrochemistry and Organic Chemistry	<p>CO1: Students will understand the difference between ideal, non-ideal and partially miscible solutions, Nernst distribution law and its applications.</p> <p>CO2: Students will understand the terms involved in phase equilibrium like phase, component and degree of freedom. Using concepts of distribution law & phase equilibrium they will be able to describe one or multi component system, salt hydrolysis, distribution indicator and also extraction of metals from its ores.</p> <p>CO3: Students will understand basic concepts of electrochemistry like EMF of cell, reversible and irreversible cells, electrode potential, electro chemical series and applications of electrochemistry.</p> <p>CO4: Students will understand concept of conductance, equivalent and molar conductivity, Transport no. and its experimental</p>

	<p>determination, applications of conductance measurements.</p> <p>CO5: Students will know about different type of conductometric and potentiometric titrations.</p> <p>CO6: Students will understand nomenclature, methods of preparation, physical and chemical properties of 1) carboxylic acids and its derivatives, 2) Amines and Diazonium salts, 3) Amino acids, peptides and proteins, and 4) Carbohydrates.</p>
<p>CHEM 201PR</p> <p>Solutions, Phase Equilibrium, Conductance, Electrochemistry and Organic Chemistry</p>	<p>CO1: Study of distribution law and its applications to determine distribution coefficient.</p> <p>CO2: To determine cell constant and equivalent conductance of weak acids.</p> <p>CO3: To perform conductometric and potentiometric titrations.</p> <p>CO4: To Prepare organic compounds-iodoform and glucosazone.</p> <p>CO5: To distinguish between reducing and non-reducing sugars.</p>
<p>CHEM 202TH</p> <p>Chemistry of Main group Elements, Chemical Energetics & Equilibrium</p>	<p>CO1: General properties and behavior of elements in the periodic table (s and p Block).</p> <p>CO2: Preparation, properties and structure of important compounds of noble gases.</p> <p>CO3: Basic terms, laws and principles of Thermodynamics. Make students to understand working of engines, need and application of third law of thermodynamics.</p> <p>CO4: Detailed description of chemical equilibrium, Concepts of weak and strong electrolyte and Buffer solution.</p>
<p>CHEM 202 PR</p> <p>Chemistry of Main group Elements, Chemical Energetics & Equilibrium</p>	<p>CO1: To understand the detailed scheme to analyse the given inorganic mixture for two acidic and basic radicals.</p> <p>CO2: To determine the water equivalent, heat of neutralization, heat of solution and heat of hydration calorimetrically.</p> <p>CO3: Use pH meter to determine the pH of buffer solutions.</p>
<p>CHEM SEC 203TH</p>	<p>CO1: Skill enhancement courses are designed to increase the</p>

<p>Basic Analytical Chemistry</p>	<p>experimental skill of students in chemistry.</p> <p>CO2:This course develops the analytical thinking and awareness, includes basic analytical terms and its applications to soil, food and environment.</p> <p>CO3:This course develops industrial skills and awareness regarding adulterations, contaminants and pollutants etc.</p>
<p>CHEM SEC 204TH</p> <p>Fuel Chemistry & Chemistry of Cosmetics and Perfumes</p>	<p>CO1:The course includes the chemistry of fuel, cosmetics and perfumes. Students will know about the synthesis and different chemical aspects of above said commercial products.</p> <p>CO2:Study about synthesis and refining of petrochemical fuels and lubricants.</p> <p>CO3: Graduates will create knowledge of cosmetics and perfume synthesis and their uses.</p>