

Department of Chemistry Course specific outcome

Name of Teacher: 1. Dr. Shashi K. Sharma 2. Ms. AnjnaKumari 3. Dr. SapanaKumari Subject: Chemistry

Course Code: CHEM101TH & CHEM102TH

Class: BSc 1st year

Courses: CHEM101TH: Atomic Structure, Bonding, General Organic Chemistry & Aliphatic Hydrocarbons. CHEM102TH: States of Matter, Chemical Kinetics & Functional Organic Chemistry.

Course	Course specific outcome
CHEM 101TH	Students will be able to:
Atomic Structure, Bonding,	CO1 : Understand about the structure of atoms and behavior of
General Organic Chemistry	matter at elementary level. They will come to know about the
and Hydrocarbons	dual nature of microscopic particles and their behavior.
	CO2 : Understand Hydrogen atom spectraand significance of quantum numbers.
	CO3 : Recognize the shapes of various atomic orbitals and nodal planes.
	CO4 : learn how to write electronic configuration by different
	rules.
	CO5: They will come to know about the hybridization, shapes of molecules and bonding in molecules.
	CO6: Will come to know the different reaction pathways and the intermediates formed during the process.
	CO7: Will learn about the constituents, synthesis, structureand
	applications of organic compounds in different fields.
	CO8: Apply the concept of stereochemistry to different
	compounds.
CHEM 101PR	CO1 : Experimentally perform volumetric analysis by
Atomic Structure, Bonding,	neutralization and redox titrations toinculcate analytical skills in
General Organic Chemistry	students.
and Hydrocarbons Lab	CO2 : The synthesis and purification of the organic compounds
	by crystallization and distillation are designed to develop
	synthetic and purification skills in students.

	CO3 : know different methods to separate the mixtures viz. solvent separation, chromatography etc., and use this technique in industrial as well as medical field.
	CO4 : Develop critical thinking to carry out, record and analyze the results of chemical experiments.
CHEM 102TH	CO1 : know the different states of matter, their nature and
States of matter, Chemical	properties.
kinetics, Functional Group	CO2 :Study the reaction rates and factors affecting them.
Organic Chemistry	CO3 : Derive integrated rate equations for zero, first and second order reactions and calculation of Half–life of a reaction. CO4 : Understand the preparation, properties and mechanism of electrophilic substitution reactions of aromatic hydrocarbon.
	CO5 : Understand chemical reactions and mechanisms of alkyl halide, alcohol and phenol, aldehydes and ketones.
CHEM 102 PR	CO1 : Determination the surface tension and viscosity of any
States of matter, Chemical	liquid through specific apparatus.
kinetics Functional Group	CO2 : Determination of speed and order of reactions
Organic Chemistry Lab	CO3 : Analyze organic compounds and to prepare their
	derivatives different.