

Semester: I
Department of Chemistry
Basirhat College

Lesson Plan for Course

Code: MD-1 /MD-2

Credit: 3

- Course coordinator: **Dr. Prasanta Das**
- Course Outcome
- CO1: To impart students a broad outline of the basic chemistry in general.
- CO2: The students will learn the Bonding of organic compounds as hydrocarbons.
- CO3: They will also learn about preliminary ideas about Thermodynamics.
- CO4: Student will know about acids and bases.
- CO5: Structures of atoms are discussed here.

Course planne

Sl	Course Topic	Teacher	Class-hrs	Remarks
				Class starts from 21.09.20 23
Sept + Oct	BASIC CONCEPTS OF CHEMISTRY Importance of Chemistry, Nature of matter, States of matter, solids, liquids, gases, classification of matter: mixture, pure substance; Properties of matter and their measurement: Mass, weight, volume, density and temperature. Uncertainty in measurement: precision and accuracy.	PD	6 hrs	
	STRUCTURE OF ATOM Discovery of sub-atomic particles: electrons, proton, Rutherford's nuclear model of atom and its' drawbacks, atomic number, mass number, Isobars and isotopes, Bohr's model for hydrogen atom	MS BD	6 hrs 4 hrs	
	THERMODYNAMICS The system and the surroundings, types of systems, state of the system, heat, work, internal energy, First law of thermodynamics.	BD	5 hrs	
Nov	CHEMICAL EQUILIBRIUM Law of mass action, idea of chemical equilibrium, Le Chatelier's principle, its applications	MS	6 hrs	
Dec /Jan	ORGANIC COMPOUNDS Introduction to haloalkanes, Methods of preparation of haloalkanes; Introduction to alcohols, phenols and ethers with suitable examples, their preparation (Reaction mechanisms not required); Introduction to aldehydes, ketones and carboxylic acids with suitable examples, their preparations.	PD	10 hrs	
	ACIDS, BASES AND BUFFER Introduction to acids and bases, Arrhenius and Lewis concepts, neutralization reactions, acidbase titration	BD	8 hrs	
	Assessment: End-term Test		Total: 45Hrs	

Resources :

Books:

. References 1. NCERT Class XI and XII textbooks in chemistry 2. ISC Class XI and XII textbooks in chemistry;