

I – Academic Planner

A. Teaching Plan (Year : _Year: 2021-2022 Semester: Odd)

Teacher's Name: Dr. Kamlesh Kumar Department: Chemistry

Sl . No.	Course	UPC	Paper Name	Core/AECC/ GE/SEC	Topic/Unit	Start Date	End Date
1.	B.Sc (Prog.) Physical Science Sem III (Practical)	42174304	Solutions, Phase Equilibrium, Conductance, Electrochemistry & Functional Group Organic Chemistry-II	CORE	Systematic qualitative analysis of Organic compounds: Extra element Detection.	20.09.2021	20.09.2021
					Systematic qualitative analysis of Organic compounds: Functional Group test for Nitro group and Derivative preparation.	27.09.2021	27.09.2021
					Systematic qualitative analysis of Organic compounds: Functional Group test for amine & amide Group and derivative preparation.	04.10.2021	04.10.2021
					Systematic qualitative analysis of Organic compounds: Functional Group test for hydrocarbon and Derivative preparation.	11.10.2021	11.10.2021
					Systematic qualitative analysis of Organic compounds: Functional Group test for halo hydrocarbon and derivative preparation.	18.10.2021	18.10.2021
					Determination of the concentration Of Glycine solution by formylation method.	25.10.2021	25.10.2021
					Action of salivary amylase on starch	02.11.2021	02.11.2021
					Differentiation between a reducing and Non- reducing sugars.	09.11.2021	09.11.2021
2.	BSc (Hons.) Organic	42174304	Solutions, Phase Equilibrium,	GE-III	Carboxylic acids and their derivatives (aliphatic and aromatic)	15.09.2021	

	Chemistry-II (Theory)		Conductance, Electrochemistry & Functional Group Organic Chemistry-II		Preparation: Acidic and alkaline hydrolysis of esters. Reactions: Hell-Volhard Zelinsky reaction, acidity of carboxylic acids, effect of substitution on acid strength.		
					Carboxylic acid derivatives (aliphatic): Preparation: Acid chlorides, anhydrides, esters and amides from acids and their interconversion, Claisen condensation. Reactions: Relative reactivities of acid derivatives towards nucleophiles, Reformatsky reaction, Perkin condensation.	22.09.2021	
					Amines (aliphatic & aromatic) and Diazonium Salts: Preparation: from alkyl halides, Gabriel's Phthalimide synthesis, Hofmann Bromamide reaction.	29.09.2021	
					Reactions: Hofmann vs Saytzeff elimination, carbylamine test, Hinsberg test, reaction with HNO ₂ , Schotten-Baumann reaction. Electrophilic substitution (case aniline): nitration, bromination, sulphonation, basicity of amines.	06.10.2021	
					Diazonium salt Preparation: from aromatic amines Reactions: conversion to benzene, phenol and dyes	13.10.2021	
					Amino Acids, Peptides and Proteins Zwitterion, isoelectric point and electrophoresis Preparation of amino acids: Strecker synthesis and using Gabriel's phthalimide synthesis. Reactions of amino acids: ester of -COOH group, acetylation of -NH ₂ group, complexation with Cu ²⁺ ions, ninhydrin test.	20.10.2021	
					Overview of Primary, Secondary, Tertiary and Quaternary Structure of proteins. Determination of primary structure of peptides by degradation Edmann degradation (N-	27.10.2021	

					terminal) and C-terminal (thiohydantoin and with carboxypeptidase enzyme). Synthesis of simple peptides (upto dipeptides) by N-protection (t-butyloxycarbonyl and phthaloyl) & C-activating groups and Merrifield solidphase synthesis.		
					Carbohydrates: Classification, and general properties, glucose and fructose (open chain and cyclic structure), determination of configuration of monosaccharides, absolute configuration of glucose and fructose.		
					mutarotation, ascending and descending in monosaccharides. Structure of disaccharides (sucrose, cellobiose, maltose, lactose) and polysaccharides (starch and cellulose) excluding their structure elucidation.		
	BSc (Prog.) Physical Science Sem-III (Practical)		Solutions, Phase Equilibrium, Conductance, Electrochemistry and Functional Group Organic Chemistry-II		Systematic qualitative analysis of organic compounds possessing monofunctional group Alcohols and Phenols and derivative preparation	24.09.2021	
					Systematic qualitative analysis of organic compounds possessing monofunctional group aldehyde and ketone and derivative preparation	08.10.2021	
					Systematic qualitative analysis of organic compounds possessing monofunctional group Carboxylic acids and derivative preparation		
	BSc (Prog.) Analytical Chemistry Sem-III		Green Methods in Chemistry	SEC	All Units	18.9.2021	04.12.2021

For Departments

A. Department activities for students – Election/Freshers/Welcome/Farewell/Department Seminars/Society functions

Event	Date	Timing	Venue	Event In-charge / Supervisor
Department Election				
Fresher's Welcome				
Farewell				
Department Society functions				
Department Seminars				
Any Other ()				

B. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted

Event Topic					
Type / Nature (FDP/Webinar/Workshop etc.)					
Organizing In-charge					
Details regarding invited Resource Person					
Nature of Participation (e.g. Invited Speaker, Participant etc.)					
Date/s		Timing/s		Mode	