

Yogoda Satsanga Palpara Mahavidyalaya

DEPARTMENT OF CHEMISTRY (General)

TEACHING PLANE Chemistry (General) (Session- 2022-23)

Semester	Paper	Unit/Module		Teacher	No. of lectures	To be completed by
Semester-1	DSC1AT	Inorganic Chemistry-1	Atomic structure	Dr. Sabyasachi Khatua	6	1 st month
			Chemical Bonding and Molecular Structure	Subhajit Das	6	2 nd month
			Fundamentals of Organic Chemistry	Sudip Maity	4	1 st Month
			Stereochemistry	Sudip Maity	12	2 nd month, 3 rd month, 4 th month
			Aliphatic Hydrocarbons			
	DSC1AP	Inorganic Chemistry	Estimation of Na ₂ CO ₃ and NaHCO ₃ in a mixture	Dr. Sabyasachi Khatua	12	1 st Month & 2 nd month
			Estimation of oxalic acid by titrating it with KMnO ₄	Dr. Sabyasachi Khatua		
			Estimation of water of crystallization in Mohr's salt by titrating with KMnO ₄	Dr. Sabyasachi Khatua		
			Estimation of Fe (II) ions by titrating it with K ₂ Cr ₂ O ₇ using internal indicator	Dr. Sabyasachi Khatua		
			Estimation of Cu (II) ions iodometrically using Na ₂ S ₂ O ₃	Dr. Sabyasachi Khatua		
		Organic Chemistry	Detection of extra elements (N, S, Cl, Br, I) in organic compounds (containing upto two extra elements)	Dr. Sabyasachi Khatua	4	3 rd month
			Separation of mixtures by Chromatography: Measure the R _f value in each case (combination of two compounds to be given)	Dr. Sabyasachi Khatua	4	4 th month
Semester-2	DSC1BT	Physical Chemistry-1	Chemical Energetic	Dr. Sabyasachi Khatua	6	1 st month
			Chemical Equilibrium	Dr. Sabyasachi Khatua	4	2 nd month
			Ionic Equilibria:	Dr. Sanjib Dey	6	3 rd month

		Organic Chemistry-2	Aromatic hydrocarbons	Sudip Maity	4	1 st month
			Alkyl and Aryl Halides	Sudip Maity	6	2 nd month
			Alcohols, Phenols and Ethers (Upto 5 Carbons)	Sudip Maity	4	3 rd month

			Ethers (aliphatic and aromatic): Aldehydes and ketones (aliphatic and aromatic):	Sudip Maity	6	4 th month
	DSC1BP	Physical Chemistry	All	Dr. Sanjib Dey	16	1 st month 2 nd month 3 rd & 4 th month
		Organic Chemistry	All			
Semester-3	DSC1CT	Physical Chemistry-2	Solutions	Dr. Sabyasachi Khatua	6	1 st month 2 nd month 3 rd & 4 th month
			Conductance	Dr. Sanjib Dey	4	
			Phase equilibria	Dr. Sanjib Dey	6	
			Electrochemistry	Dr. Sabyasachi Khatua	6	
		Organic Chemistry-3	All	Sudip Maity	12	1 st month 2 nd month 3 rd & 4 th month

	DSC1CP	Physical Chemistry Lab	Distribution	Dr. Sabyasachi Khatua	15	1 st month 2 nd month 3 rd
			Phase equilibria	Dr. Sabyasachi Khatua		
			Conductance	Dr. Sabyasachi Khatua		
			Potentiometry	Dr. Sabyasachi Khatua		
		Organic Chemistry Lab	All	Dr. Sabyasachi Khatua		4 th month
	SEC1T	Basic Analytical Chemistry	Introduction, Analysis of soil, Analysis of water, Analysis of food products, Chromatography, Ion-exchange	Subhajit Das	12	1 st , 2 nd , 3 rd month
	SEC1P	Basic Analytical Chemistry Lab	All	Subhajit Das	8	3 rd , 4 th and 5 th month

Semester-IV	DSC1DT	Inorganic Chemistry	Transition Elements (3d series)	Subhajit Das	6	1 st and 2 nd month
			Coordination Chemistry	Subhajit Das	4	3 rd month
			Crystal Field Theory	Subhajit Das	5	3 rd and 4 th month
		Physical Chemistry-3	Kinetic Theory of Gases	Dr. Sanjib Dey	6	1 st and 2 nd 3 rd & 4 th month
			Liquids	Dr. Sabyasachi Khatua	4	
			Solids	Dr. Sabyasachi Khatua	4	
			Chemical Kinetics	Dr. Sabyasachi Khatua	6	
	DSC1DP CHEMISTRY (LAB)	Inorganic Chemistry	Semi-micro qualitative analysis	Dr. Sabyasachi Khatua	7	1 st , 2 nd and 3 rd month
		Physical Chemistry	Surface tension measurement	Dr. Sabyasachi Khatua	15	2 nd , 3 rd & 4 th month
			Viscosity measurement	Dr. Sabyasachi Khatua		
			Chemical Kinetics	Dr. Sabyasachi Khatua		

	SEC2T	Analytical Clinical Biochemistry	Basic understanding of the structures, properties and functions of carbohydrates, lipids and proteins:	Subhajit Das	8	1 st , 2 nd month
			Biochemistry of disease: A diagnostic approach by blood/urine analysis	Subhajit Das	4	3 rd month
	SEC2P	Analytical Clinical Biochemistry Lab	Identification and estimation	Subhajit Das	8	3 rd , 4 th and 5 th month
Semester-5	DSE1AT Organometallics, Bioinorganic Chemistry, Polynuclear hydrocarbons and UV, IR Spectroscopy	Inorganic Chemistry-4	Organometallic Compounds	Dr. Sabyasachi Khatua	6	1 st and 2 nd month 2 nd , 3 rd and 4 th month
			Chemistry of 3d metals	Subhajit Das	4	
			Bio-inorganic Chemistry	Subhajit Das	10	1 st , 2 nd , 3 rd and 4 th month
		Organic Chemistry – 4	Polynuclear and heteronuclear aromatic compounds	Dr. Sanjib Dey	4	
			Active methylene compounds	Sudip Maity	10	
			Application of Spectroscopy to Simple Organic Molecules			
	DSE1AP Organometallics, Bioinorganic Chemistry, Polynuclear hydrocarbons and UV, IR Spectroscopy	Practical: Section A: Inorganic Chemistry Section B: Organic Chemistry	All	Dr. Sabyasachi Khatua	12	1 st and 2 nd , 3 rd & 4 th month

	SEC3T	Pharmaceutical Chemistry	Drugs & Pharmaceuticals	Sudip Maity	8	1 st and 2 nd 3 rd month
			Fermentation	Sudip Maity	4	
	SEC3P	Pharmaceutical Chemistry Practical	All	Sudip Maity	04	4 th and 5 th month
Semester-6	DSE1BT	Industrial Chemicals and Environment	Industrial Gases & Inorganic Chemicals	Dr. Sabyasachi Khatua	6	1 st and 2 nd month
			Energy & Environment & Biocatalysis	Dr. Sabyasachi Khatua	6	
			Industrial Metallurgy	Subhajit Das	4	3 rd month
			Environment and its segments	Dr. Sanjib Dey	8	2 nd , 3 rd and 4 th month
	DSE1BP	Industrial Chemicals and Environment Lab	All	Dr. Sabyasachi Khatua	12	1 st , 2 nd , 3 rd & 4 th month

	SEC4T	Pesticide Chemistry	All	Sudip Maity	8	1 st , 2 nd and 3 rd month
	SEC4P	Pesticide Chemistry Lab	All	Sudip Maity	4	4 th month

