## LESSON PLAN: CHEMISTRY

(SB: Sharmila Bhattacharya PR: Priyabrata Roy AS: Anuva Samanta IS: Ishita Saha SG: Soumavo Ghosh)

## 4 YEAR B.SC. DEGREE COURSE and 3 YEAR B.SC. COURSE (MDC): SEM1 & SEM3

Semester	Programme	Course Code	Topic		No. of Hours	Marks
			Extra nuclear structure of atoms	SB	08	12
		CHEM-	Periodicity	SG	07	13
	Major	H-CC1-1-	Basics of organic Chemistry Bonding and Physical Properties	PR	15	25
		Th	Thermodynamics-I and Chemical Kinetics-I	IS	15	25
		CC 1-1-P	Acid-base titration, Oxidation-Reduction titrimetry	SG	30	25
1		SEC 1-1- TH	Titrimetric analysis, Acid-base titrimetry, Redox titrimetry, Precipitation titrimetry	SB	10	15
			Complexometric titrimetry, Water analysis, Water treatment technology	AS	09	15
			Introduction to Quantitative analysis and its interdisciplinary nature, Gravimetric analysis	SG	19	30
			Water treatment technology and Basic Laboratory Practices	IS	07	15
		SEC 1-1- Tu	TUTORIAL	SB,AS, IS,SG		25
		CHEM- H-IDC 1- 1-TH	Titrimetric analysis, Acid-base titrimetry, Redox titrimetry, Precipitation titrimetry, Complexometric titrimetry  Introduction to Quantitative analysis and its interdisciplinary nature, Water analysis, Water treatment technology, and Basic Laboratory Practices	SB,AS,IS, SG		50
		CHEM- H-IDC 1- 1-Tu	TUTORIAL	SB,AS,IS, SG	15	25

	Minor /	CHEM-		of atoms and Periodicity	SB	15	25		
	MDC	H-CC1-1-	Basics of organic Chemistry B	onding, Physical Properties and	PR	15	25		
		Th		nemistry-I					
		and	Themodynamics-I an	d Chemical Kinetics-I	AS	15	25		
		CHEM-							
		MD-CC1-							
		1-Th							
		CC1-1-P	•		Acid-base titration, Oxidation-Reduction titrimetry		AS,IS	30	25
	MDC		Chmistry in Daily Life - Theory Module-1		SB	15	25		
		CHEM-	Module-2		PR	15	25		
		MD-SEC-		Module-3	IS	15	25		
		Th							
		CHEM-	Chemistry in Daily Life -Tutorial	Estimation of Vitamin C	SB	15	25		
		MD-SEC-		Determination of saponification	PR				
		Tu		number of oil.					
			Determination of Iodine number of		IS				
		TD G 1 1		oil.	a.p.	1.0	2.7		
	MD-IDC	IDC 1-1-	Chemistry in daily life-Module-I		SB	10	25		
		Th	Chemistry in daily life-Module-II		AS	10	25		
		GEG 1 1	Chemistry in daily life-Module-III		IS	10	25 25		
		SEC 1-1-	TUTORIAL		SB,AS,IS	15	25		
		Tu	Conductance		A.C.	0			
			Dharainal Chamiatan		AS	9			
		CC 3-3-	Physical Chemistry	Ionic Equilibrium	AS	8			
	Majar	Th+P	ELECTROCHEMISTRY-I						
	Major	In+P							
3									
3									
		CC 3-3-	Physical Chemistry Chemical Equilibrium		IS	12			
		Th+P	Thermodynamics II						
			Application of thermodynamics-I						
		CHEM-							
		H-CC3-3-							
		P							

	CHEM- H-CC4-3-	Organic Chemistry I	Organic Chemistry I		45	75
	Th	Aromatic Substitution, Substitution and Elimination Reactions,				
		Chemistry of alkenes and alkynes				
	CHEM- H-CC4-3- P	Identification of Single Organic Compounds.		PR	30	25
	CHEM-	Chemistry in Daily Life - Theory Module-1		SB	45	75
	H-SEC3-	Module-2		PR		
	3-Th		Module-3	IS		
			Module-3	SG		
	CHEM-	Chemistry in Daily Life -Tutorial	Estimation of Vitamin C	SB	15	25
	H-SEC3- 3-Tu		Determination of saponification number of oil.	PR		
			Determination of Iodine number of oil.	IS SG		
			Determination of methyl alcohol in alcoholic beverages			
Minor	CHEM-		Extra nuclear structure of atoms Periodicity		8	25
	H-CC1-3-				7	2.5
	Th	Basics of organic Chemistry Bonding, Physical Properties and Stereochemistry-I		PR	15	25
			nd Chemical Kinetics-I	AS	15	25
	CHEM-	Themodynamics Tu	Module-1	PR	20	25
MDC	MD-CC3-	Organic Chemistry	Module-2	IS	15	25
	3-Th		Module-3	SG	15	25
	CHEM- MD-CC3- 3-P	Identification of pure s	Identification of pure single Organic Compound		30	25
MDC	CHEM-	Chmistry in Daily Life - Theory	Module-1	SB	45	75
	MD-SEC-		Module-2	PR		
	Th		Module-3	IS		
	CHEM-	Chmistry in Daily Life -Tutorial	Estimation of Vitamin C	SB	15	25
	MD-SEC-	Determination of saponification number of oil.  Determination of Iodine number of oil.		PR		
	Tu					
				IS SB, IS,		
IDC	IDC 3-3- Th	Chemistry in Daily Life	ry in Daily Life		45	75

IDC 3-3-	TUTORIAL	SB, IS,	15	25
Tu		AS		

## B.SC. CBCS HONOURS AND GENERAL: SEM 5

5	Hons	CC-11 Th Physical Chemistry	Statistical Thermodynamics, Numerical Analysis	IS	30	30
		Thysical Chemistry	Quantum chemistry II,	AS	30	30
		CC-11 P	Computer Programming	AS	45	30
		CEMA-CC-5-12-TH Organic Chemistry 5	Cyclic Compounds, Biomolecules	PR	60	50
		CEMA-CC-5-12-P	Chromatographic Separations and Spectroscopic Analysis of Organic Compounds	PR	45	30
		DSE-A2- Th	Application of computer in Chemistry	AS	60	50
		DSE-A2- P	Application of computer in Chemistry	AS	45	30
		DSE-B1-Th	Inorganic materials of industrial importance	SB	30	50
			Inorganic materials of industrial Importance: Surface Coatings, Alloys, Catalysis, Chemical explosives.	SG	30	
		DSE-B1- P	Inorganic materials of industrial importance	SB	45	30
5	General	DSE-A2-Th	Inorganic materials of industrial importance	SB	30	50

	Inorganic materials of industrial Importance: Surface Coatings, Alloys, Catalysis, Chemical explosives.	SG	30	
DSE-A2-P	Inorganic materials of industrial Importance	SG	45	30