Maulana Azad College, Kolkata
Department of Chemistry
Lesson Plan 2021-2022, Undergraduate Chemistry (Hons. & General), w.e.f. 01.09.2021

Semester	Dates of CU Examination*	Name of the Faculty	Course Code	Paper	Brief Description of the Topics
Sem-1 (CC)	*follow the latest notification by CU	Dr. Ashis Kumar Mukherjee	**CC-1-1-TH**	**Inorganic Chemistry-1**	Redox reactions
			CC-1-1-P		***Practical***: Inorganic Chemistry-I (1) LAB
		Dr. Goutam Kumar Mondal	**CC-1-1-TH**		Acid-Base reactions
		Dr. Sanju Das	**CC-1-1-TH**		Extra nuclear structure of the atom
			CC-1-1-P		***Practical***: Inorganic Chemistry-I (1) LAB
		Dr. Sucheta Singha (Chandra)	**CC-1-1-TH**	**Organic Chemistry-1A**	Bonding and Physical Properties – Valence Bond theory, Electronic displacements, MO theory
		Dr. Ajanta Mukherji	**CC-1-1-TH**		Bonding and Physical Properties – Physical properties; General Treatment of Reaction Mechanism I
			CC-1-1-P		***Practical***: Organic Chemistry-O (1A) LAB
		Dr. Arijit Kundu	**CC-1-1-P**		***Practical***: Organic Chemistry-O (1A) LAB
		Dr. Rajendra Saha	**CC-1-2-TH**	**Physical Chemistry-1**	Kinetic Theory and Gaseous State, Transport processes
			CC-1-2-P		***Practical***: Physical Chemistry-P (1) LAB
		Dr. Subhodip Samanta	**CC-1-2-TH**		Chemical Kinetics
			CC-1-2-P		***Practical***: Physical Chemistry-P (1) LAB
		Prof. Tapan Kumar Karpha	**CC-1-2-TH**	**Organic Chemistry-1B**	Stereochemistry I: Optical activity of chiral compounds, General Treatment of Reaction Mechanism II
		Dr. Arijit Kundu	**CC-1-2-TH**		Stereochemistry I: Bonding geometries of carbon compounds, concept of chirality, relative and absolute configuration
			CC-1-2-P		***Practical***: Organic Chemistry-O (1B) LAB
		Dr. Ajanta Mukherji	**CC-1-2-P**		***Practical***: Organic Chemistry-O (1B) LAB
Sem-1 (GE)	*follow the latest notification by CU	Dr. Rajendra Saha	**GE 1**	**Paper-1**	Theory: Kinetic Theory of Gases and Real Gases, Liquids
		Dr. Subhodip Samanta			Theory: Chemical Kinetics
		Dr. Sanju Das			Theory: Atomic structure, Chemical Periodicity, Acids and bases
					Practical: Inorganic Quantitative
		Dr. Ajanta Mukherji			Theory: Inductive effect, resonance and hyperconjugation, nucleophiles and electrophiles, Stereochemistry
		Dr. Arijit Kundu			Theory: Reactive intermediates: carbocations, carbanions and free radicals, Nucleophilic Substitution and Elimination Reactions

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Sem-3 (CC+SEC)	*follow the latest notification by CU	Dr. Rajendra Saha	**CC-3-5-TH**	**Physical Chemistry-2**	Chemical Thermodynamics-I and II, Systems of Variable Composition, Applications of Thermodynamics-I
			CC-3-5-P		***Practical***: Physical Chemistry-2
		Dr. Subhodip Samanta	**CC-3-5-TH**		Chemical Equilibrium, Electrochemistry- Conductance and transport number, Ionic equilibrium, Electromotive Force
			CC-3-5-P		***Practical***: Physical Chemistry-2
		Dr. Ashis Kumar Mukherjee	**CC-3-6-TH**	**Inorganic Chemistry - 3**	Chemistry of s and p block elements
		Dr. Goutam Kumar Mondal	**CC-3-6-TH**		Coordination Chemistry-I, Noble Gases
			CC-3-6-P		***Practical***: Complexometric Titration; Chromatography of Metal Ions, Gravimetry
		Dr. Sanju Das	**CC-3-6-TH**		Chemical Periodicity, Inorganic Polymers
			CC-3-6-P		***Practical***: Complexometric Titration; Chromatography of Metal Ions, Gravimetry
		Prof. Tapan Kumar Karpha	**CC-3-7-TH**	**Organic Chemistry-3**	Carbonyl and related compounds: Exploitation of acidity of α-H of C=O
			CC-3-7-P		***Practical***: Identification of a Pure Organic Compound; Quantitative Estimations (Glucose, Sucrose, Aniline, Urea)
		Dr. Sucheta Singha (Chandra)	**CC-3-7-TH**		Chemistry of alkenes and alkynes
			CC-3-7-P		***Practical***: Quantitative Estimations (Glycine, Acetic acid, Saponification value)
		Dr. Ajanta Mukherji	**CC-3-7-TH**		Aromatic substitution; Organometallics
			CC-3-7-P		***Practical***: Identification of a Pure Organic Compound; Quantitative Estimations (Glucose, Sucrose, Aniline, Urea)
		Dr. Arijit Kundu	**CC-3-7-TH**		Carbonyl and related compounds: Addition to C=O, Nucleophilic addition to α,β-unsaturated carbonyl system
		Dr. Sucheta Singha (Chandra)	**SEC-A**	**SEC-2**: Analytical Clinical Biochemistry	Proteins, Enzymes
		Dr. Ajanta Mukherji			DNA and RNA, Biochemistry of Disease
		Dr. Arijit Kundu			Carbohydrates, Lipids, Lipoproteins
Sem-3 (GE)	*follow the latest	Prof. Tapan Kumar Karpha	**GE 3**	**Paper-3**	Theory: Aromatic Hydrocarbons, Organometallic Compounds, Aryl Halides

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Sem-3 (GE)	notification by CU	Dr. Ashis Kumar Mukherjee	**GE 3**	**Paper-3**	Theory: Comparative study of p-block elements, Transition elements (3d series)
		Dr. Goutam Kumar Mondal			Theory: Chemical Bonding and Molecular structure, Coordination chemistry
					Practical: Inorganic Qualitative
		Dr. Subhodip Samanta			Theory: Electrochemistry: Ionic equilibria, Conductance, Electromotive force
Sem-5 (CC+ DSE)	*follow the latest notification by CU	Dr. Rajendra Saha	**CC-5-11-TH**	**Physical Chemistry-4**	Quantum Chemistry II, Numerical Analysis
			CC-5-11-P		***Practical***: Computer programs (Using FORTRAN or C or C ++)
		Dr. Subhodip Samanta	**CC-5-11-TH**		Statistical Thermodynamics
			CC-5-11-P		***Practical***: Computer programs (Using FORTRAN or C or C ++)
		Prof. Tapan Kumar Karpha	**CC-5-12-TH**	**Organic Chemistry-5**	Carbohydrates
		Dr. Sucheta Singha (Chandra)	**CC-5-12-TH**		Cyclic Stereochemistry, Pericyclic Reactions, Biomolecules: Peptides
			CC-5-12-P		***Practical***: Chromatographic separations
		Dr. Ajanta Mukherji	**CC-5-12-TH**		Heterocycles, Biomolecules: Nucleic acids
			CC-5-12-P		***Practical***: Spectroscopic Analysis of Organic Compounds
		Dr. Arijit Kundu	**CC-5-12-TH**		Carbocycles, Biomolecules: Amino acids
			CC-5-12-P		***Practical***: Spectroscopic Analysis of Organic Compounds
		Dr. Rajendra Saha	**DSE-A2-TH**	**DSE-A-2**	Applications of Computers in Chemistry
			DSE-A2-P		***Practical***
		Dr. Subhodip Samanta	**DSE-A2-TH**		Applications of Computers in Chemistry
			DSE-A2-P		***Practical***
		Dr. Ashis Kumar Mukherjee	**DSE-B1-TH**	**DSE-B-1:** Inorganic Materials of Industrial Importance	Batteries, Alloys, Catalysis
			DSE-B1-P		***Practical***
		Dr. Goutam Kumar Mondal	**DSE-B1-TH**		Fertilizers, Surface Coatings
			DSE-B1-P		***Practical***
		Dr. Sanju Das	**DSE-B1-TH**		Silicate Industries, Chemical Explosives