Curriculum and Credit Framework (CCF)-2022, University of Calcutta
Proposed Distribution of Syllabus and Class Load
Course: Chemistry Major, Physical Chemistry-II, Semester-4
Paper: CHEM-H-CC7-4-Th (DSCC-7), Theory

Module	**Number of Lectures**	**Topic of the Prescribed Syllabus**	**Faculty Responsible**
Module I: Transport processes and Liquid State	5	Diffusion and Viscosity	Dr. A. Sanyal
	4	Surface Tension and Energy	Dr. B. Pal
Module II: Solid State	6	Bravais Lattice and Laws of Crystallography	Dr. A. Sanyal
	6	Crystal Plane	Dr. A. Sanyal
Module III: Application of Thermodynamics-II & Electrochemistry-II	8	Colligative Properties	Dr. B. Pal
	8	Phase Equilibrium	Dr. A. Sanyal
	8	Electromotive Force	Dr. B. Pal

Paper: CHEM-H-CC7-4-P (DSCC-7), Practical

Number of Practical Classes	**Topic of the Practical**	**Faculty Responsible**
4	1) Determine the surface tension of a given solution by drop weight method using a stalagmometer.	Dr. A. Sanyal & Dr. B. Pal
4	2) Study the variation of surface tension of acetic acid solutions with concentration and hence determine graphically the concentrationof an unknown solution of acetic acid.	Dr. A. Sanyal & Dr. B. Pal
4	3) Determination of viscosity of aqueous solutions of (i) ethanol and (ii) sugar at room temperature.	Dr. A. Sanyal & Dr. B. Pal
4	4) Study the variation of viscosity of sucrose solution with the concentration of solute and hence determine graphically the concentration of an unknown solution.	Dr. A. Sanyal & Dr. B. Pal
4	5) Conductometric titration of Mixture Strong and Weak monobasic acid against strong base.	Dr. A. Sanyal & Dr. B. Pal
4	6) Conductometric titration of a Dibasic acid against strong base.	Dr. A. Sanyal & Dr. B. Pal
4	7) Study of kinetics saponification reaction conductometrically	Dr. A. Sanyal & Dr. B. Pal