

1.	Title of the course	Transition Metals and Coordination Chemistry
2.	Course number	CY502L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To CY5103/10
6.	To be offered by	Department of Chemistry
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	Course Objective(s): To impart knowledge on the structural, magnetic, optical and electronic properties of transition metals coordination compounds. To provide knowledge on approaches to design such coordination compounds and hence to exploit their utility for mankind.	
10.	Course Content: General chemistry of the d-block and f-block elements, coordination chemistry of transition elements and their bonding, interpretation of electronic structure and properties and absorption spectra, structure-reactivity correlations, reactivity of coordination complexes including reaction kinetics, magnetic properties of transition metals and lanthanides, electron-transfer reactions, inorganic spectroscopy, introduction to biological inorganic chemistry.	
11.	Textbook(s): 1. Atkins P, Overton T, Rourke J, Armstrong F and Weller M, <i>Inorganic Chemistry</i> , Oxford University Press (2010). 2. Housecroft C E and Sharpe A G, <i>Inorganic Chemistry</i> , Pearson Education Limited (2012).	
12.	Reference(s): 1. Cotton F A, Wilkinson G, Murillo C A and Bochmann M, <i>Advanced Inorganic Chemistry</i> , John Wiley & Sons (1999). 2. Douglas B E, McDaniel D H and Alexander J J, <i>Concepts and Models in Inorganic Chemistry</i> , John Wiley & Sons (2001). 3. Figgis B N, and Hitchman M A, <i>Ligand Field Theory and Its Applications</i> , Wiley Eastern Ltd (1999). 4. Huheey J E, Keiter E and Keiter R, <i>Inorganic Chemistry</i> , Harper Collins College Publisher (1993).	