

**MANAV RACHNA UNIVERSITY**  
 Department Of Chemistry  
 Mapping of Course Outcomes with Program Outcomes  
 Program: M.Sc Chemistry

SEMESTER-I												
Subject Code	Subject name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CHH 501B	Inorganic Chemistry – I	✓	✓	✓	X	✓	✓	X	X	X	✓	✓
CHH 502B	Organic Chemistry – I	✓	X	✓	X	✓	X	X	X	X	X	✓
CHH 503B	Physical Chemistry-I	✓	X	X	X	✓	X	X	✓	✓	✓	✓
CHH 504B	Analytical Chemistry	✓	✓	✓	✓	X	✓	X	✓	✓	✓	✓
CHH 505B	Laboratory Work-I	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X
SEMESTER-II												
CHH 508B	Inorganic Chemistry – II	X	✓	X	X	✓	X	X	✓	✓	✓	✓
CHH 509B	Organic Chemistry – II	✓	✓	X	✓	✓	X	X	✓	✓	✓	✓
CHH 5010B	Physical Chemistry-II	✓	✓	X	✓	✓	X	X	✓	✓	✓	✓
CHH 5011B	Molecular Spectroscopy	✓	✓	✓	✓	✓	✓	X	✓	X	X	X
CHH 5012B	Laboratory Work-I	✓	✓	✓	✓	X	✓	✓	X	✓	✓	✓
CHH 5013B	Scientific Research I	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
SEMESTER-III												
CHH 601B	Symmetry & Group Theory	✓	✓	X	✓	X	✓	X	✓	✓	✓	✓
Inorganic Chemistry Specialization												
CHH 608B	Inorganic Special-I (Organometallic Chemistry of Transition Metals & Bio Inorganic Chemistry)	✓	X	✓	X	X	✓	X	✓	✓	✓	✓
CHH 609B	Inorganic Special-II (Supramolecular Chemistry & Metal Clusters)	✓	X	✓	X	✓	X	X	X	X	X	✓
CHH 610B	Inorganic Elective (Solid state Materials)	X	✓	✓	✓	X	✓	✓	✓	✓	✓	X
CHH 611B	Inorganic Elective (Inorganic & Biological Catalysis)	X	X	✓	✓	✓	X	✓	✓	✓	X	✓
CHH 612B	Inorganic Laboratory	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CHN 607B	Scientific Research II	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	✓
Organic Chemistry Specialization												
CHH 613B	Organic Special-I (Statistical stereochemistry and Asymmetric Synthesis)	✓	✓	X	X	✓	X	✓	✓	✓	✓	✓
CHH 614B	Organic Special II (Photochemistry & Pericyclic)	✓	✓	X	X	✓	X	✓	✓	✓	✓	✓
CHH 615B	Organic Special-Elective: Modern Organic Synthetic Technique	✓	✓	X	✓	X	X	X	✓	X	✓	✓
CHH 616B	Organic Special-Elective: Bioorganic Chemistry	✓	X	X	✓	✓	✓	X	X	✓	✓	✓
CHH 617B	Organic Special-Elective: Chemistry of Natural Products	X	X	✓	✓	✓	✓	✓	✓	✓	✓	✓
CHH 618B	Organic Laboratory	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
Physical Chemistry Specialization												
CHH 602B	Physical Special-I (Magneto-chemistry, Chemical Kinetics, Catalysis & ion transport)	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	✓
CHH 603B	Physical Special-II (Irreversible thermodynamics, Transport Phenomenon, Photochemistry & Fast Reaction)	✓	X	✓	✓	✓	X	X	✓	✓	✓	✓
CHH 604B	Physical Elective:(Advanced Spectroscopy)	X	X	X	X	X	✓	✓	✓	X	✓	✓
CHH 605B	Physical Elective:(Advanced Chemical Kinetics)	X	X	✓	✓	✓	✓	X	✓	✓	✓	X
CHH 606B	Physical Laboratory	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SEMESTER-IV (All Specialization)												
CHN 619B	Major Project (Industrial or Research Lab Training)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		24	17	15	19	19	17	13	24	25	27	25