

M.Sc. (Chemistry)

Total Credit: 80

FIRST SEMESTER						SECOND SEMESTER					
Code	Course Name	L	T	P	C	Code	Course Name	L	T	P	C
CHY6101	Chemistry of Main Group Elements	2	1	0	3	CHY6201	Chemistry of Transition Metals	2	1	0	3
CHY6102	Organometallic Chemistry	2	1	0	3	CHY6202	Analytical Chemistry and Bonding	3	1	0	4
CHY6104	Stereochemistry, Reaction Mechanism and Aromaticity	2	1	0	3	CHY6204	Advanced Organic Chemistry of Multiple Bonds	2	1	0	3
CHY6105	Spectroscopy	3	1	0	4	CHY6209	Advanced Quantum Chemistry and Chemical Binding	2	1	0	3
CHY6109	Advanced Physical Chemistry	2	1	0	3	CHY6231	Advanced Chemistry Laboratory - II	0	0	6	3
CHY6108	Symmetry and Group Theory	2	1	0	3	MA6205	Research Methodology and Technical Writing	2	1	0	3
CHY6131	Advanced Chemistry Laboratory - I	0	0	6	3	CHY6270	Mini Project and Seminar	0	0	4	2
		13	6	6	22			11	5	10	21
Total Contact Hours (L + T + P)		25				Total Contact Hours (L + T + P)+OE		26			
THIRD SEMESTER						FOURTH SEMESTER					
Code	Course Name	L	T	P	C	Code	Course Name	L	T	P	C
CHY7104	Photochemistry, Pericyclic Reactions and Heterocyclic Chemistry	2	1	0	3	CHY7270	Major Project	0	0	32	16
CHY7109	Surfaces and Solid-State Chemistry	2	1	0	3						
CHY7130	Advanced Chemistry Laboratory - III	0	0	6	3						
CHY7170	Minor Project	0	0	6	3						
CHYXXX	DSE - I	2	1	0	3						
CHYXXX	DSE - II	2	1	0	3						
CHYXXX	DSE - III	2	1	0	3						
		10	5	12	21			0	0	32	16
Total Contact Hours (L + T + P)		27						32			

Discipline Specific Electives (DSE)

III

Discipline Specific Electives 1

- CHY7140: Photo Inorganic Chemistry
- CHY7141: Bio-Inorganic Chemistry
- CHY7142: Nuclear and Radiochemistry
- CHY7143: Metallurgical Science

Discipline Specific Electives 2

- CHY7150: Medicinal Chemistry
- CHY7151: Chemistry of Biomolecules
- CHY7152: Bio-Organic Chemistry
- CHY7153: Textile Chemistry

Discipline Specific Electives 3

- CHY7160: Computational Chemistry
- CHY7161: Biophysical Chemistry
- CHY7164: Catalysis Technology
- CHY7165: Programming in Chemistry

Detailed Syllabus