

M. Sc. Curriculum: Chemistry From the Academic Year 2020-21

Semester I

S. No.	Course No.	Subject	L	T	P	C
1.	CY5101	Quantum Chemistry and Chemical Bonding	3	0	0	3
2.	CY5103	Transition Metals and Coordination Chemistry	3	0	0	3
3.	CY5105	Reactions and Reagents in Organic Chemistry	3	0	0	3
4.	CY5107	Thermodynamics and Chemical Kinetics	3	0	0	3
5.	CY5109	Main Group and Organometallic Chemistry	3	0	0	3
6.	CY5191	Organic Chemistry Laboratory	0	0	6	4
Total			15	0	6	19

Semester II

S. No.	Course No.	Subject	L	T	P	C
1.	CY5202	Principles of Spectroscopy	3	0	0	3
2.	CY5204	Stereochemistry and Organic Synthesis	3	0	0	3
3.	CY5206	Symmetry and Group Theory	3	0	0	3
4.	CY5208	Bioinorganic and Environmental Chemistry	3	0	0	3
5.	CY5210	Computer Programming and Numerical Methods in Chemistry	2	0	3	4
6.	CY5292	Inorganic Chemistry Laboratory	0	0	6	4
Total			14	0	9	20

Semester III

S. No.	Course No.	Subject	L	T	P	C
1.	CY6101	Electrochemistry and Chemistry of Solids	3	0	0	3
2.	CY6103	Applications of Spectroscopy in Inorganic and Organic Chemistry	3	0	0	3
3.	DPE1	Departmental Elective-1	3	0	0	3
4.	FRE1	Free Elective-1	3	0	0	3
5.	CY6150	Project Phase-I	-	-	-	3
6.	CY6191	Physical Chemistry Laboratory	0	0	6	4
Total			12	0	6	19

Semester IV

S. No.	Course No.	Subject	L	T	P	C
1.	CY6202	Biomolecules and Chemical Biology	3	0	0	3
2.	DPE2	Departmental Elective-2	3	0	0	3
3.	FRE2	Free Elective-2	3	0	0	3
4.	CY6250	Project Phase-II	-	-	-	9
Total			9	0	0	18

Total Credits: 76

Departmental Electives

1. CY5021 - Introduction to Polymer Science
2. CY5022 - Statistical Mechanics
3. CY5023 - Computational Methods in Materials Science
4. CY6021 - Introduction to Materials and Nanoscience
5. CY6022 - Contemporary Topics in Inorganic Chemistry
6. CY6023 - Contemporary Topics in Organic Chemistry
7. CY6024 - Pericyclic Reactions and Photochemistry
8. CY6025 - Chemistry of Heterocycles and Natural Products
9. ID5101 - Mathematical Methods for Basic Science I