

Course Structure:

Name of the Program:		M.Sc. Chemistry		
Name of the Department:		Chemistry		
Distribution of total credits:				
Course Core Credits		Elective course Credits		Total Credits
72		12		84
Semester wise Distribution of credits:				
Sem I	Sem II	Sem III	Sem-IV	Total Credits
21	22	23	18	84

Course Code	Name	Credits
Semester I		
CHE 411	Organic Chemistry-I: Physical Organic and Stereochemistry	4
CHE 412	Concepts in Inorganic Chemistry	4
CHE 413	Thermodynamics (Classical and Statistical)	4
CHE 415	Quantum Chemistry-I	3
CHE 416	Organic Chemistry practical	3
CHE 417	Inorganic Chemistry practical	3
Semester II		
CHE 421	Organic Chemistry-II: Organic Reactions and Mechanisms	4
CHE 422	Advanced Inorganic Chemistry	4
CHE 423	Surface Science, Electrochemistry and Chemical Kinetics	4
CHE 424	Analytical I: Principles, Practices and Applications	4
CHE 425	Molecular Symmetry and Spectroscopy	3
CHE 426	Physical Chemistry Practical	3
Semester III		

CHE 511	Solid State Chemistry	3
CHE 512	Analytical II: Instrumental Methods of Analysis	4
CHE 513	Organic Chemistry-III: Heterocyclic Chemistry and Total Synthesis of Natural Products	4
CHE 514	Quantum Chemistry-II	3
CHE XXX	Elective I (Physical)	3
CHE 515	Seminar	2
CHE 516	Project	4
Semester IV		
CHE 521	Chemistry of Macromolecules	3
CHE XXX	Elective II (Organic)	3
CHE XXX	Elective III (Inorganic)	3
CHE XXX	Elective IV (Analytical)	3
CHE 522	Project	6
Electives:		
Course	Name	Credits
CHE 501	Colloidal Chemistry and Nanoparticle Synthesis	4
CHE 502	Material synthesis and characterization	4
CHE 503	New Methods and Strategies in Organic Synthesis	3
CHE 504	Modern Raman spectroscopy	3
CHE 505	Renewable energy	3
CHE 506	Spectroscopic Identification of Organic Compounds	3
CHE 507	Advanced Catalysis	3
CHE 508	Molecular Modelling of Complex Chemical Systems	3
CHE 509	Microfluidics	3