Master of Science (M.Sc.) Program in Chemistry

Curriculum

Cat.	*Course Number, Course Title*	*L-T-P*	*Credits*		*Cat.*	*Course Number, Course Title*	*L-T-P*	*Credits*
I Semester					**II Semester**			
C	CY 511 Reactions and Mechanisms	3-0-3	4		C	CY 521 Physical Organic Chemistry	3-0-0	3
C	CY 512 Transition Metal Chemistry	3-0-0	3		C	CY 522 Main Group Chemistry	3-0-3	4
C	CY 513 Statistical Thermodynamics and Chemical Kinetics	3-0-3	4		C	CY 523 Solid State and Material Chemistry	3-0-0	3
C	CY 514 Quantum Chemistry and Spectroscopy	3-0-0	3		C	CY 524 Chemical Binding	3-0-3	4
C	CY 515 Mathematical and Numerical Techniques for Chemists	3-0-0	3		C	CY 525 Organometallic and Bio-Inorganic Chemistry	3-0-0	3
		Total	**17**				*Total*	**17**
III Semester					**IV Semester**			
C	CY 612 Organic Synthesis	3-0-0	3		E	CY 613 Analytical and Spectroscopic Techniques	3-0-0	3
R	Thesis		15		R	Thesis		15
		Total	**18**				*Total*	**18**

Electives

CY751	Quantum Computing	CY759	Advance Material Design
CY752	Principles of Nuclear Magnetic Resonance	CY760	Polymer Dynamics
CY753	Analytical Techniques and Spectroscopy	CY761	Art in Organic Synthesis
CY754	Statistical Mechanics and Molecular Simulations	CY762	Quantum Chemistry
CY755	Advance Catalysis	CY763	Catalysis for Energy
CY756	Group Theory and Molecular Spectroscopy	CY764	Chemical Reaction Dynamics
CY757	Chemical Binding	CY765	Molecular Dynamics Simulations
CY758	Stochastic Problems in Biophysics	CY766	Stereochemistry of Organic Compounds
		CY768	Water Chemistry
		CY769	Sustainable catalytic Design

S. No.	*Category*	*Course Category Title*	*Total Courses*	*Total Credits*
1	C	*Compulsory*	12	40
2	R	*Thesis*	1	30
		Total	**11**	**70**