

Course Structure: M.Sc. in Chemistry (2019-2020)

Cat.	Deviation	Programme Components	MSC		
				Min	Max
DC		Department/Programme Core	108	70	110
DE		Department/Programme Elective	54	40	70
DP		Practical Component	18	0	20
DT		Thesis	40	30	40
HU/L		Humanities/Language	5/9	0	10
		Total	225/229	220	240

L: Lecture hours; T: Tutorial hours; P: Laboratory/ Practical hours; C: Credits

Subject Areas/Specilization

	Area Code	Name of the Areas				
	0	Core/Fundamentals				
	1	Physical Chemistry				
	2	Inorganic Chemistry				
	3	Organic Chemistry				

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PG-CRC Code	Course Code	Course Name	L-T-P			Credits
Department of Chemistry: 2-Year M.Sc. I-Semester						
DC	DC-CY-401	Quantum Chemistry & Thermodynamics	3	0	0	9
DC	DC-CY-402	Reaction Kinetics & Photochemistry	3	0	0	9
DC	DC-CY-403	Analytical Chemistry	3	0	0	9
DC	DC-CY-404	Organic Chemistry-I: Stereochemistry and Reactive Intermediates	3	0	0	9
DC	DC-CY-405	Chemistry of Transition and Inner Transition Elements	3	0	0	9
DP	DP-CY-491	Chemistry Lab. I (Physical Chemistry)	0	0	3	3
DP	DP-CY-492	Chemistry Lab. II (Inorganic Chemistry)	0	0	3	3
DP	DP-CY-493	Chemistry Lab. III (Organic Chemistry)	0	0	3	3
HU/L	HU/L	Humanities	1/3	1/0	0	5/9
Total			16/18	1/0	9	59/63
Department of Chemistry: 2-Year M.Sc. II-Semester						
DC	DC-CY-406	Group Theory and Molecular Spectroscopy	3	0	0	9
DC	DC-CY-407	Electrochemistry and Surface Phenomena	3	0	0	9
DC	DC-CY-408	Chemistry of Coordination Compounds	3	0	0	9
DC	DC-CY-409	Organic Chemistry-II: Synthesis and Reaction Mechanisms	3	0	0	9
DC	DC-CY-410	Bioorganic Chemistry	3	0	0	9
DP	DP-CY-494	Chemistry Lab. IV (Physical Chemistry)	0	0	3	3
DP	DP-CY-495	Chemistry Lab. V (Inorganic Chemistry)	0	0	3	3
DP	DP-CY-496	Chemistry Lab. VI (Organic Chemistry)	0	0	3	3
Total			15	0	9	54

Department of Chemistry: 2-Year M.Sc. III-Semester						
DC	DC-CY-501	Organometallic Chemistry	3	0	0	9
DC	DC-CY -502	Spectroscopic Techniques in Organic Chemistry	3	0	0	9
DE	DE	Department Elective (DE-1)	3	0	0	9
DE	DE	Department Elective (DE-2)	3	0	0	9
DE	DE	Department Elective (DE-3)	3	0	0	9
DT	DC-CY-592	Thesis	0	0	10	10
			Total	15	0	10
Department Elective - (DE-1)						
DE	DE-CHI- 423	Adsorption and Heterogeneous Catalysis	3	0	0	9
DE	DE-CHI- 452	Chemistry of Biomolecules	3	0	0	9
DE	DE-CHI-442	Bioinorganic Chemistry	3	0	0	9
Department Elective - (DE-2)						
DE	DE-CHI- 421	Solid State Chemistry	3	0	0	9
DE	DE-CHI- 461	Instrumental Methods of Chemical Analysis	3	0	0	9
DE	DE-CY-531	Advance of Heterocyclic Compounds	3	0	0	9
Department Elective - (DE-3)						
DE	DE-CY- 511	Statistical Thermodynamics	3	0	0	9
DE	DE-CHI-541	Supramolecular Chemistry	3	0	0	9
DE	DE-CY-532	Chemistry of Polymer	3	0	0	9
Department of Chemistry: 2-Year M.Sc. IV-Semester						
DE	DE	Department Elective (DE-4)	3	0	0	9
DE	DE	Department Elective (DE-5)	3	0	0	9
DE	DE	Department Elective (DE-6)	3	0	0	9
DT	DT-CY-592	Thesis	0	0	30	30
			Total	9	0	30
Department Elective -(DE-4)						
DE	DE-CHI-411	Molecular Simulation	3	0	0	9
DE	DE-CY-534	Natural Products	3	0	0	9
DE	DE-CY-424	Energy Storage Devices	3	0	0	9
Department Elective -(DE-5)						
DE	DE-CHI- 501	Green Chemistry	3	0	0	9
DE	DE.PYM-533.18	Nanomaterials	3	0	0	9
DE	DE.PYM 534.18	Material &Characterization Techniques	3	0	0	9
Department Elective -(DE-6)						
DE	DE-CY-521	Bioinspired Energy Conversion	3	0	0	9
DE	DE-CY-523	Electroanalytical Chemistry	3	0	0	9
DE	DE-CY-522	Inorganic Clusters	3	0	0	9