SNU
SISTER NIVEDITA UNIVERSITY

2020

SYLLABUS

School of Natural Sciences

M.Sc. in Chemistry
under UGC – CBCS

DEPARTMENT OF CHEMISTRY
DCHEMSNU

M.Sc. Chemistry Course Structure

Category definition with credit breakup

Semester	Credit					
	CC	DSE	GE	SEC	USC	Total/Sem
First	20	4	4	1	2	31
Second	20	4		1	2	27
Third	24			1	2	27
Fourth	12			1	2	15
Total Credit/ Course	76	8	4	4	8	
Total Credit						100

CC: Core Courses; **GE**: General Elective; **SEC**: Skill Enhancement Courses;
DSE: Discipline Specific Elective; **USC:** University specified course

First Year

Category	Course name	Credit	Teaching Scheme		
			L	T	P
Semester – I					
CC – 1	Stereochemistry and Study of Reactive Intermediates	4	3	1	0
CC – 2	Statistical Mechanics, Thermodynamics and Quantum Chemistry	4	3	1	0
CC – 3	Supramolecular Metal complexes and & and application of Thermal Analysis	4	3	1	0
CC – 4	Advanced Spectroscopy I & Methods of Organic Synthesis	4	3	1	0
CC – 5	M.Sc. Chemistry Practical – I&II	4	0	0	8
DSE – 1	Pharmaceutical Science and Drug Delivery	4	3	1	0
GE - 1	Generic Elective	4	4	0	0
USC – 1	Foreign language – I	2	2	0	0
SEC – 1	Mentored Seminar – I	1	1	0	0
Total Credit = 31			Teaching Hour = 35		
Semester – II					
CC – 6	Advanced Spectroscopy II, Diffraction techniques	4	3	1	0
CC – 7	Coordination Chemistry I & II and Chemistry of d- and f-block elements	4	3	1	0
CC – 8	Photochemistry & Pericyclic Reactions	4	3	1	0
CC – 9	Group Theory and Application and Inorganic Photochemistry	4	3	1	0
CC – 10	M.Sc. Chemistry Practical – III & IV	4	0	0	8
DSE – 2	Biophysical Chemistry & instrumentation	4	3	1	0
USC – 2	Foreign language – II	2	2	0	0
SEC – 2	Mentored Seminar – II	1	1	0	0
Total Credit = 27			Teaching Hour = 31		

Second Year

Category	Course name	Credit	Teaching Scheme		
			L	T	P
Semester – III					
CC – 11	Chemical Kinetics & Macro-molecules	4	3	1	0
CC – 12	Chemistry of biomolecules and Natural Products	4	3	1	0
CC – 13	Inorganic Reaction Mechanism & Radiation Chemistry	4	3	1	0
CC – 14	Material Chemistry & Nano-materials	4	3	1	0
CC – 15	Industrial and Applied Chemistry	4	3	1	0
CC – 16	M.Sc. Chemistry Practical – V & VI	4	0	0	8
USC – 3	Foreign language – III	2	2	0	0
SEC – 3	Mentored Seminar – III	1	1	0	0
Total Credit = 27			**Teaching Hour = 31**		
Semester – IV					
CC – 17	Chemistry Master Project / Dissertation	12	0	0	24
USC – 4	Foreign language – IV	2	2	0	0
SEC – 4	Chemistry Master Seminar	1	1	0	0
Total Credit = 15			**Teaching Hour = 27**		