

Department of Chemistry
Integrated M.Sc. Chemistry

S.No.	Code	Title	Area	Cr	L	T	P	TH	PH	CWS	PRS	MTE	ETE	PRE
First Year (Autumn Semester)														
1.	MAN-001	Mathematics-I	BSC	4	3	1	0	3	0	25	0	25	50	0
2.	CYN-101	Introduction to Chemical Science	PCC	2	2	0	0	0	0	0	0	0	100	0
3.	CYN-103	Computer Programming	ESC	4	3	0	2	3	0	15	25	20	40	0
4.	PHN-007	Modern Physics	BSC	4	3	0	2	3	0	15	25	20	40	0
5.	HSN-002	Ethics and Self Awareness	HSSC	2	1	1	0	2	0	25	0	25	50	0
6.	CEN-105	Introduction to Environmental Studies	GSC	3	3	0	0	3	0	25	0	25	50	0
7.	HSN-001A/B	Communication Skills (Basic/ Advanced)	HSSC	2	1	0	2	2	0	25	0	25	50	0
		Total		21										
First Year (Spring Semester)														
1.	MAN-002	Numerical Methods	BSC	4	3	1	0	3	0	25	0	25	50	0
2.	PHN-008	Electromagnetic theory	BSC	4	3	1	0	3	0	25	0	25	50	0
3.	CYN-102	Physical Chemistry-I	PCC	4	3	0	2	3	2	15	25	20	40	0
4.	CYN-104	General Organic and Inorganic Chemistry	PCC	4	3	0	2	3	2	15	25	20	40	0
5.	CYN-106	Basic Analytical Chemistry	PCC	4	3	1	0	3	0	25	0	25	50	0
6.	CHN-102	Energy Engineering	ESC	4	3	1	0	3	0	25	0	25	50	0
		Total		24										
Second Year (Autumn Semester)														
1.	BTN-201	Genetics and Molecular Biology	ESC	4	3	1	0	3	0	25	0	25	50	0
2.	CYN-201	Thermodynamics	PCC	4	3	1	0	3	0	25	0	25	50	0
3.	CYN-203	Coordination Chemistry and Organometallics	PCC	4	3	1	0	3	0	25	0	25	50	0
4.	CYN-205	Organic Chemistry-I	PCC	4	3	1	0	3	0	25	0	25	50	0
5.	MAN-205	Ordinary and Partial Differential Equations	BSC	4	3	1	0	3	0	25	0	25	50	0
6.	HSS-ELE	HSS Elective Course	HSSC	3	0	0	3	0	25	0	25	50	0	0
		Total		23										
Second Year (Spring Semester)														
1.	MAN-102	Linear Algebra	BSC	4	3	1	0	3	0	25	0	25	50	0
2.	PHN-214	Applied Optics	BSC	4	3	0	2	3	0	15	25	20	40	0
3.	MTN-208	Engineering Polymers and Composites	ESC	4	3	1	0	3	0	25	0	25	50	0
4.	CYN-202	Main Group and Cluster Chemistry	PCC	4	3	1	0	3	0	25	0	25	50	0
5.	CYN-204	Organic Chemistry-II	PCC	4	3	1	0	3	0	25	0	25	50	0
6.	CYN-206	Chemical Kinetics	PCC	3	3	0	0	3	0	25	0	25	50	0
		Total		23										
Third Year (Autumn Semester)														
1.	CYN-301	Quantum Chemistry and Chemical Bonding	PCC	4	3	1	0	3	0	25	0	25	50	0
2.	CYN-303	Advanced Coordination Chemistry	PCC	3	3	0	0	3	0	25	0	25	50	0
3.	CYN-305	Organic Chemistry-III	PCC	3	3	0	0	3	0	25	0	25	50	0
4.	CYN-311	Laboratory I	PCC	6	0	0	1	0	4	0	25	25	0	50
5.	CYN-ELE1	Department Elective -1	PEC	3	3	0	0	3	0	25	0	25	50	0
6.	BM-ELE/ OEC	Open Elective Course/Management Studies Elective Course	OEC/H SSME C	3	2	1	0	2	0	25	0	25	50	0
		Total		22										
Third Year (Spring Semester)														

Fourth Year (Autumn Semester)														
S. No.	Code	Title	Area	Cr	L	T	P	TH	PR	CWS	PRS	MTE	ETE	PRE
1.	CYN-515	Art of Scientific/ Technical Writing	PCC	2	2	0	0	2	0	25	0	25	50	0
2.	CYN-521	Advanced Analytical Methods	PCC	4	3	1	0	3	0	25	0	25	50	0
3.	CYN-523	Organic Chemistry-V	PCC	3	3	0	0	3	0	25	0	25	50	0
4.	CYN-525	Advanced Molecular Spectroscopy	PCC	3	3	0	0	3	0	25	0	25	50	0
5.	CYN-ELE3	Department Elective – 3	PEC	3	3	0	0	3	0	25	0	25	50	0
6.	CYN-531	Laboratory-III	PCC	6	0	0	12	0	6	0	25	25	0	50
7.	MSC-2	Minor Specialization Course-II	MSC	3	3	0	0	0	0	0	25	25	50	0
Total				21/24										
Fourth Year (Spring Semester)														
1.	CYN-522	Materials Chemistry	PCC	3	3	0	0	3	0	25	0	25	50	0
2.	CYN-524	Frontier Inorganic Chemistry	PCC	3	3	0	0	3	0	25	0	25	50	0
3.	CYN-526	Organic Chemistry-VI	PCC	3	3	0	0	3	0	25	0	25	50	0
4.	CYN-532	Laboratory-IV	PCC	6	0	0	12	0	6	0	25	25	0	50
5.	CYN-ELE4	Department Elective – 4	PEC	3	3	0	0	3	0	25	0	25	50	0
6.	CYN-ELE5	Department Elective – 5	PEC	3	3	0	0	3	0	25	0	25	50	0
7.	MSC-3	Minor Specialization Course-III	MSC	3	3	0	0	3	0	25	0	25	50	0
Total				21/24										
Fifth Year (Autumn Semester)														
1.	CYN-ELE6	Departmental Elective – 6	PEC	4	3	1	0	3	0	25	0	25	50	0
2.	CYN-ELE7	Departmental Elective – 7	PEC	4	3	1	0	3	0	25	0	25	50	0
4.	CYN- 699	Seminar	PCC	2	0	1	4	0	0	0	0	0	100	0
5.	CYN-600	Dissertation Stage I*	DIS	0	0	0	6	0	0	0	0	0	0	0
Total				10	6	3	10							
Fifth Year (Spring Semester)														
1.	CYN-600	Dissertation Stage II	PCC	12	0	0	24	0	0	0	0	0	100	0
2.	MSC-4	Minor Specialization Course-IV	MSC	3	3	0	0	3	0	25	0	25	50	0
3.	MSC-5	Minor Specialization Course-V	MSC	3	3	0	0	3	0	25	0	25	50	0
Total				12/18										

*40% weightage will be given for stage I during the end term evaluation.

Semester	Summary									
	1	2	3	4	5	6	7	8	9	10
Semester-wise Total Credits	21	24	23	23	22	19(22)	21(24)	21 (24)	10	12(18)
Total Credits	196(212)									

No of credits for Integrated M.Sc. = 196

No of Credits for Integrated M.Sc. with MINOR SPECIALISATION = 211

Year	BSC 16- 28	ESC 16	HSSC 10	GSC 03	PCC 116- 122	MSC	PEC 24-32	SEM 02	DIS 12	Discipline 02	NCC/NSO /NSS 02	NCC/NSO/NSS/ Proficiency 02	Total
1	16	8	4	3	14	0	0	0	0	0	2	0	47
2	12	8	3	0	23	0	0	0	0	0	0	0	46
3	0	0	3	0	32	3	6	0	0	0	0	0	41(44)
4	0	0	0	0	33	6	9	0	0	0	0	0	42(48)
5	0	0	0	0	0	6	8	2	12	2	0	2	26(32)
Total	28	16	10	3	102	15	23	2	12	2	2	2	202(217)

Total No of credits for Integrated MSc = 196/202

No of Credits for Integrated MSc with MINOR SPECIALISATION = 211/217