

Program Code: **XX M.Sc. (Chemistry)**
 Department: **CY Chemistry**
 Year: **I**

[illegible]

DEPARTMENT OF CHEMISTRY
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

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Teaching Scheme					Contact Hours/Week			Exam. Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Semester-I (Autumn)														
1.	CY-601	Project - I	PCC	4	0	0	8	0	0	0	0	0	100	0
2.		Program Elective-II	PEC	3	-	-	-	-	-	-	-	-	-	-
3.		Program Elective-III	PEC	3	-	-	-	-	-	-	-	-	-	-
4.		Program Elective-IV	PEC	3	-	-	-	-	-	-	-	-	-	-
5.		Program Elective-V	PEC	3	-	-	-	-	-	-	-	-	-	-
6.		Program Elective-VI	PEC	3	-	-	-	-	-	-	-	-	-	-
Total				19										
Semester-II (Spring)														
1.	CY-602	Project - II	PCC	8	0	0	16	0	0	0	0	0	100	0
2.	CY-604	Seminar	SEM	2	0	0	0	0	0	0	0	0	100	0
3.		Program Elective-VII	PEC	3	-	-	-	-	-	-	-	-	-	-
Total				13										

Summary				
Semester	1	2	3	4
Semester-wise Total credits	22	23	19	13
Total Credits	77			

List of Program Elective Courses

Teaching Scheme					Contact Hours/Week			Exam. Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	CY-512	Nuclear and Radiochemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
2.	CY-514	Heterocyclic Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
3.	CY-518	Structure, Bonding and Properties of Solids	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
4.	CY-520	Inorganic Rings and Polymers	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
5.	CY-606	Total Synthesis	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
6.	CY-607	Electroanalytical Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
7.	CY-608	Chemical Biology	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
8.	CY-609	Inorganic Biochemistry and Reaction Mechanism	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
9.	CY-610	Molecular Modeling and Simulations	PEC	3	2	0	2/2	2	0	15-30	20	15-25	30-40	0
10.	CY-612	Carbon Nanomaterials and their Applications	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
11.	CY-613	Frontiers in Inorganic Biochemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
12.	CY-614	Asymmetric Synthesis	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
13.	CY-615	Crystal and Molecular Structure	PEC	3	2	0	2/2	2	0	15-30	20	15-25	30-40	0
14.	CY-617	Supramolecular Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
15.	CY-619	Modern Organic Synthetic Methods	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
16.	CY-621	Organic Structure Determination	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
17.	CY-623	Organic Semiconductors	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
18.	CY-625	Proteins and Polypeptides	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0

19.	CY-627	Advanced Surface and Colloidal Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
20.	CY-629	Advanced Physical Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
21.	CY-633	Nanoscale Materials: Properties and Applications	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
22.	CY-635	Advanced Magnetic Resonance Spectroscopy	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
23.	CY-638	Reactivity, Structure Determination, Devices and Electronic Structure of Solids	PEC	3	2	0	2/2	2	0	15-30	20	15-25	30-40	0
24.	CY-703	Advanced Material Characterization Techniques	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
25.	CY-902	Advanced Inorganic Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
26.	CY-903	Advanced Organic Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
27.	CY-904	Advanced Physical Chemistry	PEC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
28.	CY-905	Spectroscopic Methods of Structural Elucidation	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
29.	CY-516	Chemistry of Main Group and Transition Elements	PEC	03	3	0	0	3	0	20-35		20-30	40-50	-