

**Program name : B.Sc. (Hons. with Research) Chemistry**

SNo	Sem	Course title	Credits	Credit Distribution				Type of Course								Prerequisite	Mandatory	Audit	CIE (100)	SEE (100)	Remark	
				Lecture	Tutorial	Practical	Self Study	Core	Elective	Multi Disciplinary	SEC	VAC	AEC	Project	Minor	Internship						
1	I	Structure & Atomic Chemical Bonding	4	3	0	1	0	4	0	0	0	0	0	0	0	0	-		100	100		
2	I	Basic Concepts and Aliphatic Hydrocarbons	4	3	1	0	0	4	0	0	0	0	0	0	0	0	-		100	100		
3	I	States of Matter	4	3	0	1	1	4	0	0	0	0	0	0	0	0	-		100	100		
17	I	Ecology and Environment	2	2	0	0	0	0	0	0	0	0	0	2	0	0	0	-	100	100		
21	I	Health and Nutrition	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0	-	100	100		
24	I	Introduction to Python programming	2	1	0	1	0	0	0	0	0	2	0	0	0	0	0	-	100	100		
38	I	Generic Elective/Minor-1	4				0	0	0	0	0	0	0	0	0	4	0	-	100	100		
4	II	Chemical Thermodynamics and Equilibrium	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	-	100	100		
5	II	Chemistry of Group Elements	4	3	0	1	1	4	0	0	0	0	0	0	0	0	0	1	100	100		
6	II	Halogen and Oxygen Containing Functional Groups	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	2	100	100		
18	II	Logical communication	2	1	0	1	0	0	0	0	0	0	0	2	0	0	0	0	100	100		
22	II	Art of Happiness	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0	-	100	100		
25	II	Essentials of IT Tools	2	1	0	1	0	0	0	0	0	2	0	0	0	0	0	-	100	100		
39	II	Generic Elective/Minor-2	4				0	0	0	0	0	0	0	0	0	0	4	0	-	100	100	
7	III	Phase Equilibria and Chemical Kinetics	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	4	100	100		
8	III	Heterocyclic Chemistry	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	2	100	100		
9	III	Electrochemistry and Magnetism	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	-	100	100		
19	III	Critical thinking & Writing	2	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	100	100		
23	III	Vedic Mathematics	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0	-	100	100		
26	III	Introduction to Artificial Intelligence	2	2	0	0	0	0	0	0	0	2	0	0	0	0	0	-	100	100		
40	III	Generic Elective/Minor-3	4				0	0	0	0	0	0	0	0	0	0	4	0	-	100	100	
10	IV	Basics of Nanoscience and Nanotechnology	3	3	0	0	0	3	0	0	0	0	0	0	0	0	0	-	100	100		
11	IV	Bioorganic and Medicinal Chemistry	5	3	0	1	1	5	0	0	0	0	0	0	0	0	0	8	100	100		
20	IV	Disaster Management	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0	-	100	100		
27	IV	Cyber Sphere & Security Global Concern	2	2	0	0	0	0	0	0	0	2	0	0	0	0	0	-	100	100		
35	IV	Waste Management	3	3	0	0	0	0	0	0	3	0	0	0	0	0	0	-	100	100		
36	IV	Technology, Environment and Sustainability	3	3	0	0	0	0	0	0	3	0	0	0	0	0	0	-	100	100		
41	IV	Generic Elective/Minor-4	4				0	0	0	0	0	0	0	0	0	0	4	0	-	100	100	
12	V	Quantum Chemistry & Spectroscopy	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	-	100	100		
13	V	Co-ordination Chemistry	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	-	100	100		
29	V	Discipline Specific Elective 1	4				0	0	4	0	0	0	0	0	0	0	0	-	100	100		
37	V	Research Methodology and Ethics	4	4	0	0	0	0	0	4	0	0	0	0	0	0	0	-	100	100		
42	V	Generic Elective/Minor-5	4				0	0	0	0	0	0	0	0	0	0	4	0	-	100	100	
46	V	Internship	2	0	0	4	0	0	0	0	0	0	0	0	0	0	2	-	100	100		
14	VI	Organometallic Chemistry	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	13	100	100		
15	VI	Organic Spectroscopy	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	-	100	100		

28	VI	Skill Enhancement course- 5	2	2	0	0	0	0	0	0	2	0	0	0	0	0	0-			100	100
30	VI	Discipline Specific Elective 2	4				0	0	4	0	0	0	0	0	0	0	0-			100	100
31	VI	Discipline Specific Elective 3	4				0	0	4	0	0	0	0	0	0	0	0-			100	100
43	VI	Generic Elective/Minor-6	4				0	0	0	0	0	0	0	0	0	0	4	0-		100	100
16	VII	Stereochemistry & Reaction mechanisms	4	3	0	1	0	4	0	0	0	0	0	0	0	0	0	-		100	100
32	VII	Discipline Specific Elective 4	4				0	0	4	0	0	0	0	0	0	0	0	0-		100	100
33	VII	Discipline Specific Elective 5	4				0	0	4	0	0	0	0	0	0	0	0	0-		100	100
34	VII	Discipline Specific Elective 6	4				0	0	4	0	0	0	0	0	0	0	0	0-		100	100
44	VII	Generic Elective/Minor-7	4				0	0	0	0	0	0	0	0	0	0	4	0-		100	100
45	VII	Generic Elective/Minor-8	4				0	0	0	0	0	0	0	0	0	0	4	0-		100	100
47	VIII	Dissertation	12		-	-	-	0	0	0	0	0	0	0	12	0	0-			100	100
		Total	168					64	24	10	10	6	8	12	32	2					

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1	V	Green Chemistry	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
2	V	Battery Technology	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
3	VI	Industrial Chemistry	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
4	VI	Analytical Methods in Chemistry	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
5	VI	Environmental analytical chemistry	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
6	VII	Advanced Inorganic Chemistry and Spectroscopy	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
7	VII	Polymer Chemistry	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
8	VII	Solid State chemistry	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		
9	VII	Carbon Materials	4	3	1	0	0	0	4	0	0	0	0	0	0	-	-	100	100		