

B.Sc Chemistry (H), Physics, Mathematics

Semester I								
S.N	Course	Code	Title	L	T	P	C	H
1	core		Mechanics	3	1	0	4	4
2	core		Differential Calculus	3	1	0	4	4
3	core		Inorganic Chemistry	3	1	0	4	4
4	skill		Introduction to Computer & C programming	3	1	0	4	4
5	core		Physics lab	0	0	2	1	2
6	core		Inorganic Chemistry lab	0	0	2	1	2
7	skill		C programming	0	0	4	2	4
8	skill		Analytical Instrumentation	0	0	2	1	2
			core: 14, skill based: 7	12	4	10	21	26

Semester II								
S.N	Course	Code	Title	L	T	P	C	H
1	core		Electricity and Magnetism	3	1	0	4	4
2	core		Differential Equations	3	1	0	4	4
3	core		Physical Chemistry	3	1	0	4	4
4	core		Physics lab	0	0	2	1	2
5	core		Physical Chemistry lab	0	0	2	1	2
6	core		Numerical Analysis	3	1	0	4	4
7	skill		Technical writing and communication skill	1	1	0	2	2
8	skill		Computational skills (application software)	0	0	2	1	2
9	skill		Electronic measurements	0	0	2	1	2
10	skill		Language lab	0	0	2	1	2
			core: 18, skill based: 5	13	5	10	23	28

Semester III								
S.N	Course	Code	Title	L	T	P	C	H
1	core		Thermal Physics & Statistical Mechanics	3	1	0	4	4
2	core		Linear Algebra	3	1	0	4	4
3	core		Organic Chemistry	3	1	0	4	4
4	core		Analytical Chemistry	3	1	0	4	4
5	skill		Environmental Science	3	0	0	3	3
6	core		Physics lab	0	0	2	1	2
7	core		Organic Chemistry lab	0	0	2	1	2
8	core		Analytical Chemistry lab	0	0	2	1	2
9	skill		Environmental lab	0	0	2	1	2
10	Elective (skill)		Competitive examination preparation	0	0	4	2	4
			Workshop practice/Engineering Drawing					
			core: 19, skill based: 6	15	4	12	25	31

Semester IV								
S.N	Course	Code	Title	L	T	P	C	H
1	core		Wave & Optics	3	1	0	4	4
2	core		Real Analysis	3	1	0	4	4

3	core		Industrial organic synthesis	3	1	0	4	4
4	core		Pharmaceutical Chemistry	3	1	0	4	4
5	core		Green Chemistry	3	1	0	4	4
6	core		Industrial organic synthesis lab	0	0	2	1	2
7	core		Physics lab	0	0	2	1	2
8	Skill		MATLAB programming	0	0	2	1	2
9	core		Chemistry lab	0	0	2	1	2
10	Elective (skill)		Renewable energy & Energy Harvesting					
			Entrepreneurship	2	0	0	2	2
			core: 23, skill based:3	17	5	8	26	30

Semester V								
S.N	Course	Code	Title	L	T	P	C	H
1	core		Polymer Science	3	1	0	4	4
2	Elective-1 (organic)		Heterocyclic Chemistry	3	1	0	3	4
			Petrochemicals					
3	Elective-2 (Inorganic)		Cement Chemistry	3	0	0	3	3
			Coordination Chemistry					
4	Elective-3 (Physical)		Electrochemistry	3	0	0	3	3
			Photochemistry					
5	Elective-4 (Int. Disc)		Enzyme and Biopolymer	3	0	0	3	3
			Biochemistry					
			Soap and detergent					
6	Generic Elective		Physics/Mathematics/HSS	3	0	0	3	3
7	core		Chemistry Lab-I	0	0	2	1	2
8	core		Chemistry Lab-2	0	0	4	2	4
9	core		CRE lab	0	0	2	1	2
			Core: 11, Elective: 12	18	2	8	23	28

Semester VI								
S.N	Course	Code	Title	L	T	P	C	H
1	Elective-5 (organic)		Organic spectroscopy	3	0	0	3	3
2	Elective-6 (Inorganic)		Organometallic Chemistry	3	0	0	3	3
			Bioinorganic chemistry					
3	Elective-7 (Physical)		Quantum chemistry and spectroscopy	3	0	0	3	3
4	Elective-8 (Int. Disc)		Paper and pulp	3	0	0	3	3
			Nuclear Chemistry					
			Forensic science					
5	Generic Elective		Physics/Mathematics/HSS	3	0	0	3	3
6			Chemistry lab-3	0	0	4	2	4
7			Project	0	0	10	5	10
			Elective: 22	15	0	14	22	29

Total credit	140
Core	85
Elective	34
skill-based (comp)	17
skill-based (elective)	4
Total	140