

**Department of Chemistry (Industrial Chemistry Section)**  
**FYUP Course Structure**

S.No.	Course Code	Title of the Course	Faculty Code	End Sem Marks	Sessional Marks	Credits	Part / Semester	Course Category	Department	Sessional / Year of Introduction
1	2	3	4	5	6	7	8	9	10	11
1	ICBSMJ1001	Industrial Aspects of Organic and Inorganic Chemistry	S	70	30	4	I	MJC	Chemistry	2022-23
2	ICBSMJ1002	Fuel Chemistry	S	70	30	2	I	MJC	Chemistry	2022-23
3	ICBSMJ1P01	Industrial Chemistry Lab-I	S	60	40	2	I	MJC	Chemistry	2022-23
4	ICBSMN1003	Basic of Unit Operations	S	70	30	4	I	MNC	Chemistry	2022-23
5	ICBSMN1P01	Unit Operations Lab	S	60	40	2	I	MNC	Chemistry	2022-23
6	ICBSGE1004	Fundamentals of Industrial Chemistry	S	70	30	4	I	GNE	Chemistry	2022-23
7	ICBSMJ2001	Industrial Physical and Material Chemistry	S	70	30	4	II	MJC	Chemistry	2022-23
8	ICBSMJ2002	Chemometrics	S	70	30	2	II	MJC	Chemistry	2022-23
9	ICBSMJ2P02	Industrial Chemistry Lab-II	S	60	40	2	II	MJC	Chemistry	2022-23
10	ICBSMN2003	Basics of Heat and Mass Transfer Operations	S	70	30	4	II	MNC	Chemistry	2022-23
11	ICBSMN2P02	Heat and Mass Transfer Lab	S	60	40	2	II	MNC	Chemistry	2022-23
12	ICBSGE2004	Environmental Impact and Assessment	S	70	30	4	II	GNE	Chemistry	2022-23
13	ICBSMJ3001	Processes in Organic Chemicals Manufacture	S	70	30	4	III	MJC	Chemistry	2023-24
14	ICBSMJ3002	Computational and Numerical Methods in Industries	S	70	30	2	III	MJC	Chemistry	2023-24
15	ICBSMJ3P03	Industrial Chemistry Lab-III	S	60	40	2	III	MJC	Chemistry	2023-24
16	ICBSMN3003	Health and Safety in Industrial Environments	S	70	30	4	III	MNC	Chemistry	2023-24

17	ICBSMN3P03	Health and Safety Lab	S	60	40	2	III	MNC	Chemistry	2023-24
18	ICBSNE3004	Bioresource and Bioprocess Technology	S	70	30	4	III	GNE	Chemistry	2023-24
19	ICBSVA3005	Waste Management	S	70	30	2	III	VAC	Chemistry	2023-24
20	ICBSVO3006	Polymer Processing Technique	S	70	30	2	III	VOC	Chemistry	2023-24
21	ICBSMJ4001	Industrial Waste Treatment and ManaGNEment	S	70	30	4	IV	MJC	Chemistry	2023-24
22	ICBSMJ4002	Unit Operations in Chemical Industries	S	70	30	2	IV	MJC	Chemistry	2023-24
23	ICBSMJ4P04	Industrial Chemistry Lab-IV	S	60	40	2	IV	MJC	Chemistry	2023-24
24	ICBSMN4003	Instrumental Methods of Analysis	S	70	30	4	IV	MNC	Chemistry	2023-24
25	ICBSMN4P04	Instrumental Methods Lab	S	60	40	2	IV	MNC	Chemistry	2023-24
26	ICBSGE4004	Fundamentals of Chemical Speciation and Toxicology	S	70	30	4	IV	GNE	Chemistry	2023-24
27	ICBSVA4005	Water Quality Testing	S	70	30	2	IV	VAC	Chemistry	2023-24
28	ICBSMJ5001	Spectroscopic Methods	S	70	30	4	V	MJC	Chemistry	2024-25
29	ICBSMJ5002	Pharmaceuticals and Agrochemicals	S	70	30	4	V	MJC	Chemistry	2024-25
30	ICBSMJ5P05	Industrial Chemistry Lab-V	S	60	40	4	V	MJC	Chemistry	2024-25
31	ICBSXO5003	Green and Sustainable Chemistry	S	70	30	4	V	MNO	Chemistry	2024-25
32	ICBSXO5004	Waste to Energy Technology	S	70	30	2	V	MNO	Chemistry	2024-25
33	ICBSMJ6001	Polymer Science	S	70	30	4	VI	MJC	Chemistry	2024-25
34	ICBSMJ6002	Petrochemicals	S	70	30	4	VI	MJC	Chemistry	2024-25
35	ICBSMJ6P06	Industrial Chemistry Lab-VI	S	60	40	4	VI	MJC	Chemistry	2024-25

36	ICBSXO6003	Industrial Pollution and Control	S	70	30	4	VI	MNO	Chemistry	2024-25
37	ICBSXO6004	Polymers in Everyday Life	S	70	30	2	VI	MNO	Chemistry	2024-25
38	ICBSMJ7001	Energy and Environment	S	70	30	4	VII (H)	MJC	Chemistry	2025-26
39	ICBSMJ7002	Advance Separation Processes	S	70	30	2	VII (H)	MJC	Chemistry	2025-26
40	ICBSMJ7003	Chemistry in Nanoscience	S	70	30	2	VII (H)	MJC	Chemistry	2025-26
41	ICBS1MJ7P07	Industrial Chemistry Lab-VII	S	60	40	4	VII (H)	MJC	Chemistry	2025-26
42	ICBSMJ7004	Basics of Food Science	S	70	30	4	VII (H)	GNE	Chemistry	2025-26
43	ICBSMJ7005	Research Methodology	S	70	30	2	VII (H)	VOC	Chemistry	2025-26
44	ICBSMJ7S01	Seminar	S	60	40	4	VII (H)	Dis/Sem	Chemistry	2025-26
45	ICBSMJ8001	Business Management and Entrepreneurship	S	70	30	4	VIII (H)	MJC	Chemistry	2025-26
46	ICBSMJ8002	Alternative Energy Sources	S	70	30	2	VIII (H)	MJC	Chemistry	2025-26
47	ICBSMJ8003	Material Science	S	70	30	2	VIII (H)	MJC	Chemistry	2025-26
48	ICBSMJ8P08	Industrial Chemistry Lab-VIII	S	60	40	4	VIII (H)	MJC	Chemistry	2025-26
49	ICBSMJ8005	Waste Management	S	70	30	4	VIII (H)	GNE	Chemistry	2025-26
50	ICBSMJ8101	Industrial Internship	S	60	40	6	VIII (H)	Dis/Sem	Chemistry	2025-26
51	ICBSMJ7001	Energy and Environment	S	70	30	4	VII (R)	MJC	Chemistry	2025-26
52	ICBSMJ7002	Advance Separation Processes	S	70	30	2	VII (R)	MJC	Chemistry	2025-26
53	ICBSMJ7003	Chemistry in Nanoscience	S	70	30	2	VII (R)	MJC	Chemistry	2025-26

54	ICBSMJ7P09	Industrial Chemistry Lab-IX	S	60	40	2	VII (R)	MJC	Chemistry	2025-26
55	ICBSMJ7004	Basics of Food Science	S	70	30	4	VII (R)	GNE	Chemistry	2025-26
56	ICBSMJ7005	Research Methodology	S	70	30	4	VII (R)	VOC	Chemistry	2025-26
57	ICBSMJ7D01	Dissertation	S	40	60	4	VII (R)	Dis/Sem	Chemistry	2025-26
58	ICBSMJ8001	Business Management and Entrepreneurship	S	70	30	4	VIII (R)	MJC	Chemistry	2025-26
59	ICBSMJ8002	Alternative Energy Sources	S	70	30	2	VIII (R)	MJC	Chemistry	2025-26
60	ICBSMJ8003	Material Science	S	70	30	2	VIII (R)	MJC	Chemistry	2025-26
61	ICBSMJ8P10	Industrial Chemistry Lab-X	S	40	60	2	VIII (R)	MJC	Chemistry	2025-26
62	ICBSMJ8004	Waste Management	S	70	30	4	VIII (R)	GNE	Chemistry	2025-26
63	ICBSMJ8D01	Dissertation	S	70	30	8	VIII (R)	Dis/Sem	Chemistry	2025-26

**Compiled by National Education Policy (NEP) Cell, Office of the Controller of Examinations**