

Course Structure: M. Tech.(Chemical Engineering)**For 2024 onwards admitted students****Semester I**

SN	Course Code	Course Name	L- T- P (Hours)	Credits
1	CL501	Advanced Transport Phenomena (Core – I)	3-0-0	3
2	CL502	Process Modeling and Optimization (Core -II)	3-0-0	3
3		Elective - I	3-0-0	3
4		Elective – II	3-0-0	3
5		Research Methodology and IPR	2-0-0	2
6	CL601	Process Modelling and Simulation Lab (Core Lab – I)	0-0-2	1
7		Elective Lab - I	0-0-2	1
8		Elective Lab - II	0-0-2	1
		TOTAL	20	17

Semester II

SN	Course Code	Course Name	L –T- P (Hours)	Credits
1	CL503	Fluidization Engineering (Core – III)	3-0-0	3
2	CL504	Membrane Separation Processes (Core -IV)	3-0-0	3
3		Elective –III	3-0-0	3
4		Elective – IV	3-0-0	3
5		Elective – V	3-0-0	3
6	CL602	Mass Transfer Operations Lab (Core Lab – II)	0-0-2	1
7		Elective Lab - III	0-0-2	1
8	CL603	Minor Project	0-0-6	3
9		Audit Course - I	2-0-0	Qualifying
		TOTAL	27	20

Semester III

SN	Course Code	Course Name	L- T –P (Hours)	Credits
1		Open Elective	3-0-0	3
2		Elective – VI	3-0-0	3

3	CL604	Seminar and Term Paper	0-0-4	2
4	CL605	Project Based Learning	0-0-8	4
5	CL606	Dissertation - I	0-0-8	4
6		Audit course -II	2-0-0	Qualifying
		TOTAL	28	16

Semester IV

SN	Course Code	Course Name	L -T -P (Hours)	Credits
1	CL607	Dissertation - II/Industrial Project	0-0-30	15
		TOTAL	30	15

Total Credits = 68

LIST OF ELECTIVES

S.No.	Elective No.	Code	Title
1	Elective I	CL701	Process Dynamics and Control
2		CL702	Advanced Heat Transfer and Fluid Dynamics
3	Elective II	CL703	Separation Processes
4		CL704	Chemical Reactor Analysis and Design
5	Elective III	CL705	Wastewater Treatment
6		CL706	Air Pollution Control
7		CL707	Cleaner Technology
8	Elective IV	CL708	Multiphase Contactors
9		CL709	Catalysis & Surface Chemistry
10	Elective V	CL710	Process Engineering
11		CL711	Conceptual Design of selected separation processes.
12		CL712	Safety & Hazards analysis and assessment

13	Elective VI	CL713	Bioprocess principles
14		CL714	Bioseparations
15		CL715	Cement Technology
16	Elective Lab - I	CL801	Process Dynamics and Control Lab
17		CL802	Heat Transfer Operations Lab
18	Elective Lab - II	CL803	Separation Processes Lab
19		CL804	Chemical Reaction Engineering Lab
20	Elective Lab - III	CL805	Environmental Engineering Lab