M. Tech. in Chemical Engineering

Program Structure

	Subject	Credit	
Sem 1	Core 1	4	20
	Core 2	4	
	Elective 1	4	
	Open elective 1	3	
	Laboratory	2	
	HSS Elective	3	
Sem 2	Core 3	4	20
	Core 4	4	
	Elective 2	4	
	Open elective 2	3	
	Case Study	5	
Summer	Mini Project/ Internship	10	
	Grand viva	2	
Sem 3	Project phase I	20	
Sem 4	Project phase II	20	
	Total Credits	**92**	

Core list

1. Advanced Reaction Engineering (CB601)
2. Advanced Numerical Methods for Chemical Engineering (CB602)
3. Advanced Transport Phenomena (CB603)
4. Classical and Statistical Thermodynamics (CB604)
5. Advanced Mass Transfer Processes (CB605)
6. Advanced Heat Transfer (CB606)

Laboratory courses

7. Modeling and Simulation Laboratory (CB631)
8. Analytical Characterization Laboratory (CB632)

Elective list

1. Principles of Electrochemical Engineering (CB611)
2. Photoelectrochemical and Photocatalytic Processes (CB612)
3. Molecular theory of solutions (CB613)
4. Nucleation and Crystallization (CB614)
5. Fundamentals of Molecular Simulations (CB615)
6. Climate change, Sustainability, and Engineering (CB616)
7. Optimization for Chemical Engineers (CB617)
8. Artificial Intelligence in Chemical Engineering (CB618)
9. Principles of Polymer Processing (CB619)
10. Advanced Chemical Engineering Kinetics (CB620)
11. Resource Optimization in Process engineering (CB621)
12. Rheology and Transport of Non-Newtonian Fluids (CB622)
13. Colloids and Interfacial Engineering (CB623)