

B.Tech Curriculum – Chemical Engineering
For 2018 Batch

Semester – I

S.No	Course No	Course Name	Category	L-T-P-C
1.	ES1101/ EA1101	Computational Engineering/ Engineering Drawing	BET/ BES	2-0-3-4 1-0-3-3
2.	CY1101/CY1202	Physical and Theoretical Chemistry/ Organic and Inorganic Chemistry	SCY	2-1-0-3
3.	ID1101	Concepts in Engineering and Design	BET	1-0-2-2
4.	MA1101	Calculus	SMA	3-1-0-4
5.	PH1101	Introduction to Classical Mechanics	SPH	2-1-0-3
6.	PH1103/CY1204	Physics Laboratory/Chemistry Laboratory	SPH/SCY	0-0-3-2
7.	EA1103	Workshop-I	BES	0-0-3-2
8.	HS1101/HS110/ HS1105/HS1107	Language Course (Pass/Fail)	HPF	2-0-0-2
Total				22/21

Semester – II

S.No	Course No	Course Name	Category	L-T-P-C
1.	ES1101/ EA1101	Computational Engineering/ Engineering Drawing	BET/ BES	2-0-3-4 1-0-3-3
2.	CY1101/ CY1202	Physical and Theoretical Chemistry/ Organic and Inorganic Chemistry	SCY	2-1-0-3
3.	ES2101	Engineering Mechanics	BET	3-1-0-4
4.	MA1202	Differential Equations and Matrices	SMA	3-1-0-4
5.	PH1202	Introduction to Electrodynamics and Quantum Mechanics	SPH	2-1-0-3
6.	PH1103/CY1204	Physics Laboratory /Chemistry Laboratory	SPH/SCY	0-0-3-2
7.	EA1202	Workshop-II	BES	0-0-3-2
Total				21/22

Semester – III

S.No	Course No	Course Name	Category	L-T-P-C
1.	BS2101	Life Sciences	SLS	2-0-0-2
2.	CH2101	Material and Energy Balances	PMT	2-1-0-3
3.	CH2103	Momentum Transfer	PMT	2-1-3-5
4.	CH2105	Chemical Engineering Thermodynamics I	PMT	2-1-0-3
5.	ES1201	Basic Electrical Engineering	BET	3-0-0-3
6.	HSE1	Humanities Elective-1	HSS	3-0-0-3
7.	MAE1	Mathematics Elective-1	SMA	3-0-0-3
Total				22

Semester - IV

S.No	Course No	Course Name	Category	L-T-P-C
1.	CH2202	Mechanical Operations	PMT	2-1-3-5
2.	CH2204	Process Heat Transfer	PMT	2-1-3-5
3.	CH2206	Chemical Engineering Thermodynamics II	PMT	2-1-0-3
4.	ES2103	Ecology and Environment	BET	2-0-0-2
5.	HSE2	Humanities Elective-2	HSS	3-0-0-3
6.	MAE2	Mathematics Elective-2	SMA	3-0-0-3
Total				21

Semester - V

S.No	Course No	Course Name	Category	L-T-P-C
1.	CH3101	Homogeneous Reaction Engineering	PMT	2-1-0-3
2.	CH3103	Fundamentals of Mass Transfer	PMT	2-1-0-3
3.	CH3105	Process Control and Instrumentation	PMT	2-1-3-5
4.	CH3107	Computational Techniques for Chemical Engineers	PMT	3-0-3-5
5.	DPE1	Department Elective-1	PMT	3-0-0-3
6.	FRE1	Free Elective-1	FRE	3-0-0-3
Total				22

Semester - VI

S.No	Course No	Course Name	Category	L-T-P-C
1.	CH3202	Heterogeneous Reaction Engineering	PMT	2-1-3-5
2.	CH3204	Separation and Purification Processes	PMT	2-1-3-5
3.	CH3206	Process Equipment Design	PMT	2-0-3-4
4.	CH3208	Transport Phenomena	PMT	2-1-0-3
5.	HSE3	Humanities Elective-3	HSS	3-0-0-3
Summer				
6.	IT3202	Industrial/Research Internship	PIT	--- 2
Total				22

Semester – VII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CH4101	Process Synthesis and Economics	PMT	3-0-0-3
2.	CH4103	Process Safety and Industrial Pollution	PMT	3-0-0-3
3.	DPE2	Department Elective -2	PMT	3-0-0-3
4.	DPE3	Department Elective -3	PMT	3-0-0-3
5.	CH4150	Project-I	PMP	--- 3
6.	FRE2	Free Elective-2	FRE	3-0-0-3
Total				18

Semester – VIII

S.No	Course No	Course Name	Category	L-T-P-C
1.	CH4202	Bioprocess Engineering	PMT	3-0-0-3
2.	DPE4	Department Elective-4	PMT	3-0-0-3
3.	CH4250	Project-II	PMP	--- 6
4.	FRE3	Free Elective-3	PMT	3-0-0-3
5.	HS4202	Professional Ethics	HPE	2-0-0-2
6.	IL4202	Industrial Lecture	PIL	1-0-0-1
Total				18

Total Credits – 166**Department Electives**

1. CH4021 Corrosion Engineering
2. CH4022 Microscale Unit Operations
3. CH4023 Oil and Gas Engineering
4. CH4024 Optimization Techniques
5. CE5105 Air Pollution Control Engineering