



॥ त्वं ज्ञानमयो विद्वानमयोऽसि ॥

2nd year B.Tech Chemical Engineering Program Structure For AY 2020-21

I Semester						II Semester					
Cat	Course	LTP	CH	NC	GC	Cat	Course	LTP	CH	NC	GC
IE	Engineering Mechanics	2-1-0	3	-	3	IE	Introduction to Electrical Engineering	3-0-2	5	-	4
IS	Chemistry	3-0-0	3	-	3	IE	Introduction to Computer Science	3-0-2	5	-	4
IS	Physics	3-0-0	3	-	3	IE	Introduction to Bioengineering	3-0-2	5	-	4
IS	Chemistry Lab	0-0-2	2	-	1						
IS	Physics Lab	0-0-2	2	-	1						
IS	Mathematics I	3-1-0	4	-	4	IS	Mathematics II	3-1-0	4	-	4
IE	Engineering Visualization	0-0-2	2	-	1	IE	Engineering Realization	0-0-2	1	-	1
NE	Engineering Design I	0-0-2	2	1	-	NE	Engineering Design II	0-0-2	2	1	-
NH	Communication Skill I	0-0-2	2	1	-	NH	Communication Skill II	0-0-2	2	1	-
NH	Social Connect and responsibilities I	0-0-1	1	0.5	-	NH	Social Connect and responsibilities II	0-0-1	1	0.5	-
NH	Performing Arts I /Sports I	0-0-1	1	0.5	-	NH	Performing Arts II/Sports II	0-0-1	1	0.5	-
Total		11-2-12	25	3	16	Total		12-1-14	27	3	17
III Semester						IV Semester					
Cat	Course	LTP	CH	NC	GC	Cat	Course	LTP	CH	NC	GC
LS	Probability, Statistics & Stochastic Process	3-1-0	4	-	4	IE	Materials Fractals: Polymer, Corrosion, Colloids & suspensions	3 × 1-0-0	3	-	3

IE	Thermodynamics	3-1-0	4	-	4	IE	Signals & Systems	3-1-0	4		4
PC	Fluid Mechanics	3-1-0	4	-	4	PC	Data Structure and Algorithm	3-0-2	5		4
IE	Introduction to Machine Learning	3-0-2	5	-	4	PC	Molecular Engineering	3-0-0	3	-	3
LS	Physics of Complex Fluids	3-0-0	3	-	3	PC	Material and Energy Balance	3-0-0	3	-	3
NE	Intro. To Profession	0-0-2	2	1		IH	Humanities	3-0-0	3	-	3
Total		15-3-4	22	1	19	Total		18-1-2	21	-	20
V Semester						VI Semester					
Cat	Course	LTP	CH	NC	GC	Cat	Course	LTP	CH	NC	GC
PC	Mass Transfer I	3-0-3	6	-	4.5	PC	Mass transfer II	3-0-3	6	-	4.5
PC	Heat Transfer	3-0-0	3	-	3	PC	Process Plant Design & Economics	3-0-3	6	-	4.5
PC	Chemical Reaction Engineering	3-0-3	6	-	4.5	PC	Transport Phenomena	3-1-0	4	-	4
PC	Scientific Computations	3-0-2	5	-	4	PC	Process Control and AI Applications	3-0-2	5	-	4
PC	Chemical Engineering Thermodynamics	3-0-0	3	-	3	PC	Fluid Mechanics-Lab	0-0-2	2		1
PC	Heat Transfer Lab	0-0-2	2	-	1	PE	Programme Elective-1	3-0-0	3	-	3
IH	Humanities II	3-0-0	3	-	3	NH	Professional Ethics II	0-1-0	1	1	-
NH	Professional Ethics I	0-1-0	1	1	-						
Total		18-1-10	29	1	23	Total		15-2-10	27	1	21
VII Semester						VIII Semester					
Cat	Course	LTP	CH	NC	GC	Cat	Course	LTP	CH	NC	GC

PP	B. Tech. Project	0-0-6	6	-	3	IH	Humanities IV	3-0-0	3	-	3
PE	Programme Elective-2	3-0-0	3	-	3	PE	Programme Elective-4	3-0-0	3	-	3
PE	Programme Elective-3	3-0-0	3		3	PE	Programme Elective-5	2-0-0	2		2
OE	Open Elective-1	3-0-0	3		3	PE	Programme Elective-6	2-0-0	2		2
IH	Humanities III	3-0-0	3	-	3	OE	Open Elective-2	3-1-0	4		4
IS	Environmental Science	2-0-0	2	-	2	OE	Open Elective-3	3-0-0	3		3
Total		14-0-6	20	-	17	Total		16-1-0	17	-	17
Total of Non-graded and Graded Credit respectively									9	150	
Non-Graded Design Credits									6	-	
Grand Total									15	165	

Note: ES are proposed Engineering Science compulsory courses