CH - B.Tech. in Chemical Engineering
2018 Batch

Semester 1

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY1001	Chemistry I	3	1	0	0	6	10	S
2	CY1002	Chemistry Laboratory I	0	0	0	3	0	3	S
3	MA1101	Functions of Several Variables	3	1	0	0	6	10	S
4	ME1100	Thermodynamics	3	1	0	0	6	10	E
5	PH1010	Physics I	3	1	0	0	6	10	S
6	PH1030	Physics Lab I	0	0	0	3	1	4	S
7	ID1200	Ecology and Environment	0	0	0	0	2	0	
8	GN1101	Life Skills I	0	0	0	0	2	0	
		NCC (NC1010)/NSO (NS1020)/NSO (NS1030)	0	0	0	0	2	0	
		Total Credits :						**47**	

Winter

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	WS1301	Workshop I	0	0	0	3	0	3	E

Semester 2

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	AM1100	Engineering Mechanics	3	1	0	0	6	10	E
2	MA1102	Series and Matrices	3	1	0	0	6	10	S
3	PH1020	Physics II	3	1	0	0	6	10	S
4	CS1100	Introduction to Programming	3	0	0	3	6	12	E
5	CH1020	Principles & Calculations in Chemical	3	1	0	0	6	10	P
6	GN1102	Life Skills II	0	0	0	0	1	0	
7		NCC (NC1010)/NSO (NS1020)/NSO (NS1030)	0	0	0	0	3	0	
		Total Credits :						**52**	

Summer

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	WS1302	Workshop II	0	0	0	3	0	3	E

Semester 3

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CH2010	Chemical Engineering Thermodynamics	3	1	0	0	6	10	P
2	CH2012	Continuum Mechanics & Transport Phenomena	3	1	0	0	6	10	P
3	CH2013	Computational Programming & Process Simulation Lab	1	0	0	2	2	5	P
4	CH2061	Computational Techniques	3	1	0	0	6	10	P
5	MAE1	Maths Elective 1	3	0	0	0	6	9	S
6	HSE1	Humanities I	3	0	0	0	6	9	H
		Total Credits :						**53**	

Semester 4

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CH2014	Fundamentals of Heat & Mass Transfer	3	1	0	0	6	10	P
2	CH2015	Fluid and Particle Mechanics	3	1	0	0	6	10	P
3	CH2016	Thermodynamics Lab	0	0	0	3	2	5	P
4	CY2010	Kinetics and Catalysis	3	0	0	0	6	9	S
5	EE1100	Basic Electrical Engineering	3	1	0	0	6	10	E
6	HSE2	Humanities 2	3	0	0	0	6	9	H
		Total						**53**	

Semester 5

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	BT1010	Life Sciences	3	0	0	0	6	9	S
2	CH3030	Applications of Mass Transfer	3	1	0	0	6	10	P
3	CH3010	Chemical Reaction Engineering	3	1	0	0	6	10	P
4	CH3510	Mom Transfer & MO Lab	0	0	0	3	2	5	P
5	CH3520	Heat and Mass Transfer Lab	0	0	0	3	2	5	P
6		Dept. Elective 1	3	0	0	0	6	9	P
		Total						**48**	

Semester 6

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CH3052	Materials Science for Chemical Engineers	3	1	0	0	6	10	P
2	CH3050	Process Dynamics & Control	3	1	0	0	6	10	P
3	CH3521	Heat and Mass Transfer Lab 2	1	0	0	3	2	6	P
4	CH3021	CRE Lab	0	0	0	3	2	5	P
5		Dept. Elective 2	3	0	0	0	6	9	P
		Total						**40**	

Summer

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
	CH3500	**Summer Internship**	0	0	0	0	20	**0**	

Semester 7

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CH4010	Process & Product Design	3	1	0	0	6	10	P
2	CH4050	Chemical Technology and Equipment Design	3	1	0	0	6	10	P
3	CH4030	Process Control Lab	0	0	0	3	2	5	P
4		Humanities 3	3	0	0	0	6	9	H
5		Dept. Elective 3	3	0	0	0	6	9	P
		Total						**43**	

Semester 8

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1		Dept. Elective 4	3	0	0	0	6	9	P
2		Dept. Elective 5	3	0	0	0	6	9	P
2	HS3050	Professional Ethics	2	0	0	0	0	0	
		Total						**18**	

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Credits	47	52+6	53	53	48*	40*	43*	18*	360+72=432

* Indicated credits are only for core program including **five Department Electives**.

* In addition, students are required to take 72 elective credits (17%) during semesters V-VIII from any dept. including Chemical Engineering, subject to maximum of 60 credits per semester. **Suggested elective credits**: Additional 72 elective credits may be split as 9-18-9-36 credits in semesters V to VIII, respectively.

Category-wise Credit Distribution

Category	Engineering (E)	Professional (P)	Humanities (H)	Sciences (S)	Free Elective	Total
Credits	48	156+45	27	75+9	72	432

B.Tech (Honours): (Total credit requirement: 432 + 27 = 459)

- ***Eligibility***: Minimum CGPA of 8.5 at the end of 4th semester without U or W grade in any course.
- **Extra credit requirement**: 27 credits total in VII & VIII semesters over and above the regular B.Tech requirement. (13+14 infeasible as specified in curriculum)
- **BTP is compulsory**, and is taken as 9 + 18 credits in VII and VIII semesters, respectively
- **27 credits of free electives have to be from CH5000+ (elective courses in the department)**
- Thus, professional credits for B.Tech. (Honours) program is 255 credits, of which 27 credits are as B.Tech Project.
- Category-wise Credit Distribution for B.Tech Honours Program:

Category	Engineering (E)	Professional (P)	Humanities (H)	Sciences (S)	Free Elective	Total
Credits	**48**	**156+72+27**	**27**	**75+9**	**45**	**459**