Institute core (IC) courses:

Sl. No.	Course No.	Course Title	Credits	Grade type
1.	CHM101A	CHEMISTRY LABORATORY	03	Letter grade
2.	CHM102A	GENERAL CHEMISTRY	08	Letter grade
3.	ESC101A	FUNDAMENTAL OF COMPUTING	14	Letter grade
4.	ESC201A	INTRODUCTION TO ELECTRONICS	14	Letter grade
5.	MTH101A	MATHEMATICS - I	11	Letter grade
6.	MTH102A	MATHEMATICS - II	11	Letter grade
7.	PHY101A	PHYSICS LABORATORY	03	Letter grade
8.	PHY102A	PHYSICS-I	11	Letter grade
9.	PHY103A	PHYSICS-II	11	Letter grade
10.	LIF101A	INTRODUCTION TO BIOLOGY	06	Letter grade
11.	TA101A	ENGINEERING GRAPHICS	09	Letter grade
12.	TA201A	MANUFACTURING PROCESSES - I	06	Letter grade
13.	TA202A	MANUFACTURING PROCESSES - II	06	Letter grade
14.	PE101A	MORNING EXERCISE	03	S/X
15.	PE102A	EVENING EXERCISE	03	S/X
16.	COM200	COMMUNICATION SKILLS: COMPOSITION	05	S/X
Total Credits			124	-

CHEMICAL ENGINEERING

BT — Template No. CHE-1

COURSES	SEMESTER							
	1st	2nd	3rd	4th	5th	6th	7th	8th
	MTH101A [11]	CHM102A [08]	CHE251A [09]	ESC201A [14]	CHE312A [09]	CHE331A [09]	CHE453A [11]	HSS-5 (Level-2) [09]
	ESC101A [14]	MTH102A [11]	TA202A [06]	TA201A [06]	CHE313A [09]	CHE381A [11]	CHE492A [08]	OE-5 [09]
	CHM101A [03]	LIF101A [06]	HSS-2 (Level-1) [11]	COM200A [05]	CHE352A [05]	CHE391A [08]	OE-3 [09]	OE-6 [09]
	PHY103A [11]	PHY101A [03]	ESO-1 [11]	SO-1 [11]	ESO-3 [14]	HSS-4 (Level-2) [09]	OE-4 [09]	DE-3 [09]
	PE101A [03]	PHY102A [11]	(ESO201A)	(CSO201A/CSO202A)	(ESO205A)			
	ENG112A/	TA101A [09]	ESO-2 [11]	CHE211A [09]	HSS-3 (Level-2) [09]	UGP-2/DE-1 [09]	UGP-3/DE-2 [09]	DE-4 [09]
	HSS-1 (Level-1) [11]	PE102A [03]	(ESO208A)	CHE221A [09]	CHE300A [02]	(CHE398A)	(CHE497A)	
	-	-	-	CHE261A [06]	OE-1 [09]	OE-2 [09]	DE-M2 [05]* (Optional)	UGP-4 [09] (CHE498A) (Extra Credits)
				-	UGP-1 [04] (CHE349A) (Extra Credits)	-		
					DE-M1 [05]* (Optional)		-	-
	53	51	48	60	57 – 66	55	46/51	45/54

MINIMUM CREDIT REQUIREMENT FOR GRADUATION:

Institute Core (IC)	:	124	Credits
Department Compulsory (DC)	:	105	Credits
Department Elective (DE)	:	36	Credits
Open Elective (OE)	:	54	Credits
SO/ ESO	:	47	Credits
HSS (Level-I)	:	22	Credits
HSS (Level-II)	:	27	Credits
Total	:	**415**	**Credits**

REMARKS:

1) *DE M1 & M2 are Modular Courses which are optional summer training and may count towards DE credits.
2) DE credits may include 18 credits from UGP-2 and UGP-3.
3) UGP-1 and UGP-4 are optional and do not count towards DE/OE credits.
4) Upto 18 DE credits may be waived from the minimum requirements for students opting for Dual Degree in Chemical Engineering itself.
5) Upto 36 OE credits may be waived from the minimum requirements for students opting for Dual Degree in another department or the Double Major programme.

BT-MT (PG Part – Category – A) *(from the same department)*

Template No. CHE-2

	PG Component				
	7th	8th	SUMMER	9th	10th
COURSES	CHE701A [0]	CHE702A [0]	M.Tech. Thesis [09] (CHE699A) (if required)	M.Tech. Thesis [09] (CHE699A) / DE/OE PG [09] (if required)	M.Tech. Thesis [36] (CHE699A)
	OE PG-1 [09]	M.Tech. Thesis [09] (CHE699A) / DE PG-1 [09]*		M. Tech. Thesis [27]	
	OE PG-2 [09]	DE PG-2 [09]*			
		OE PG-3 [09]			
		OE PG-4 [09]			
		M.Tech. Thesis [09]			
	18	45	09	36	36

MINIMUM CREDIT REQUIREMENT IN MS PART FOR GRADUATION:

PG Component : 54 Credits
Thesis : 81 Credits

Basket - A

CHE611A [09]
CHE621A [09]
CHE631A [09]
CHE641A [09]

REMARKS:

1) All courses to be taken with the permission of Supervisor/ DUGC Convener.
2) *DE PG 1 & 2 should be selected from Basket – A.
3) CHE701A and CHE702A (seminar courses) are mandatory.
4) Course credits and Thesis credits mentioned under the dual degree template are only for the M.Tech. part of the programme. In addition to these credits, students are required to follow and complete all their graduation requirements for their UG programme.
5) 18 DE credits may be used from the BT minimum requirements to fulfil requirements for the BT-MT dual degree programme. These will be waived from the BT programme and counted towards PG requirements.
6) Upto 36 OE credits may be used from the BT minimum requirements to fulfil requirements for the BT-MT dual degree programme. These will be waived from the BT programme and counted towards PG requirements.

BS/BT-MT (Category – B) *(from other departments)*						Template No. CHE-3	
COURSES	UG Pre-Requisites		PG Component				
	Odd Semester	Even Semester	7th	8th	SUMMER	9th	10th
	ESO204A [11]/ CHE211A [09]*	CHE331A [09]	CHE701A [0]	CHE702A [0]	M.Tech. Thesis [09] (CHE699A) (if required)	M.Tech. Thesis (CHE699A) / DE PG [09] (if required)	M.Tech. Thesis [36] (CHE699A)
			DE PG-1 [09], DE PG-2 [09]				
			CHE611A [09], DE PG-3 [09]				
			CHE621A [09]				
	ESO201A [11]/ CHE221A [09]*		CHE631A [09]/ CHE633A [09]			M.Tech. Thesis [27] (CHE699A)	
			M.Tech. Thesis [09] (CHE699A)				
	18/22	09	63		09	36	36

MINIMUM CREDIT REQUIREMENT IN MT PART FOR GRADUATION:

PG Component : 54 Credits
Thesis : 81 Credits

REMARKS:

1) *The ESO courses may be substituted by the CHE courses only with permission of the CHE DUGC convener.
2) CHE701A and CHE702A (seminar courses) are mandatory.
3) All courses to be taken with the permission of Supervisor/ DUGC Convener.
4) Course credits and Thesis credits mentioned under the dual degree template are only for the M.Tech. part of the programme. In addition to these credits, students are required to follow and complete all their graduation requirements for their UG programme.
5) Upto 36 OE credits may be used from the parent department's BT/BS minimum requirements to fulfil requirements for the BT-MT dual degree programme. These will be waived from the parent department's BT programme requirements and counted towards PG requirements.

DOUBLE MAJOR	Template No. CHE-4
Odd Semester	**Even Semester**
Pre-Requisites	
ESO201A [11]	CSO201A [11]/ CSO202A [11]
ESO208A [11]	
ESO205A [14]	
Mandatory CHE Courses	
CHE251A [09]	CHE211A [09]
CHE312A [09]	CHE221A [09]
CHE313A [09]	CHE261A [06]
CHE352A [05]	CHE331A [09]
CHE453A [11]	CHE381A [11]
CHE492A [08]	CHE391A [08]
51	52

TOTAL MANDATORY CREDITS FOR SECOND MAJOR IN CHEMICAL ENGINEERING: 103 CREDITS

REMARKS:

1) Depending on overlap with course contents of parent department, some equivalent CHE courses may be waived on a case-to-case basis.
2) Upto 36 OE credits may be waived from the parent department BT/BS graduation requirements when they are used to fulfill requirements for the double major.

MINOR	Template No. CHE-5
Title	CHEMICAL ENGINEERING
COURSES	CHE251A [09]
	CHE261A [09]
	CHE313A [09]
	CHE331A [09]
	36