

## CIVIL ENGINEERING

B.TECH.				SEMESTER				Template No. CE-1
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>
C	MTH101A [11]	MTH102A [11]	CE241 [09]	CE242 [11]	CE311 [12]	CE352A [07]		
O	PHY103A [11]	PHY102A [11]	ESO-1 [11] (ESO202A)	CE262A [08]	CE331A [11]	CE372A [06]	CE441b [05]	DE-B [09]
U	CHM101A [03]	PHY101A [03]	ESO-2 [11] (ESO204A)	CE272 [09]	CE351A [08]	CE382 [09]	DE-A [11]	OE-4 [09]
R	LIF101A [06]	ESC101A [14]	HSS-2 (Level-1) [11]		CE361A [06]	HSS-3 (Level-2) [09]	DE-B [09]	HSS-5 (Level-2) [09]
S	ENG112A/HSS-1 (Level-1) [11]	CHM102A [08]	SO-1 [06] (MSO203B)	ESC201A [14]	CE371A [06]	OE-1 [09]	HSS-4 (Level-2) [09]	OE-5 [09]
E	PE101A [03]	PE102A [03]	TA202A [06]	SO-2 [11] (MSO201A)	ESO-3 [11] (ESO208A)	DE-A [11]	OE-2 [09]	OE-6 [09]
S	TA101A [09]	-	COM200 [05]	TA201A [06]	CE341A [02]	UGP-1 [04] (CE332A) (Extra Credits)	OE-3 [09]	UGP-4 [09] (CE493A) (extra credit)
	54	50	59	59	56	51 – 55	52	45 – 54

### MINIMUM CREDIT REQUIREMENT FOR GRADUATION:

Institute Core (IC)	: 124	Credits
Department Compulsory (DC)	: 109	Credits
*Department Elective (DE)	: 40	Credits
Open Elective (OE)	: 54	Credits
SO/ ESO	: 50	Credits
HSS (Level-I)	: 22	Credits
HSS (Level-II)	: 27	Credits
<b>Total</b>	<b>: 426</b>	<b>Credits</b>

### BASKET – A

CE412 [11]
CE451 [11]
CE462 [11]
CE471 [11]
CE481 [11]
CE432A [11]

### BASKET – B\*\*

CE491 [09]
CE492 [09]
CE605 [05]
CE606 [05]

### REMARKS:

- 1) \*Students need to ensure that the four courses chosen as DE include a minimum of 22 credits from Basket-A, and total to a minimum of 40 credits. Students opting for the dual degree programme within CE have to do a minimum of 31 credits of DE, which should include minimum 22 credits from Basket A.
- 2) \*\*The DE-B basket may also contain departmental PG courses that may be offered as DE-B from time to time. Students opting for the dual degree programme within CE are allowed to take CE491 or CE492 as DEs from Basket B or as OE.
- 3) UGP-1 and UGP-4 do not count towards DE/OE credits or minimum graduation requirements.
- 4) Upto 45 OE credits and 09 DE credits may be waived from the minimum requirements for students opting for the dual degree programme within CE.
- 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.

"Eligible and interested students can take CE332A as UGP-1, CE491A as UGP-2, CE492A as UGP-3 and CE493A as UGP-4. B.Tech students can take CE491A and CE492A as DE-B only. Dual degree students can take CE491A and CE492A as either DE-B or OE. CE332A (UGP-1) and CE493A (UGP-4) are for extra credits and do not count for DE or OE credits required for graduation"

BT-MT (PG Part – Category – A) (from the same department)				Template No. CE-2
Sl. No.	Specialization	Compulsory Course Credits	Elective Credits	Thesis Credits
1.	ENVIRONMENTAL ENGINEERING	None	63 Credits	M.Tech. Thesis [72]
2.	GEOINFORMATICS	None	63 Credits	M.Tech. Thesis [72]
3.	GEOTECHNICAL ENGINEERING	None	63 Credits	M.Tech. Thesis [72]
4.	HYDRAULICS AND WATER RESOURCES	None	63 Credits	M.Tech. Thesis [72]
5.	STRUCTURAL ENGINEERING	None	63 Credits	M.Tech. Thesis [72]
6.	TRANSPORTATION ENGINEERING	None	63 Credits	M.Tech. Thesis [72]
7.	INTERDISCIPLINARY	To be decided by advisor(s).	-63 Credits	M.Tech. Thesis [72]

**MINIMUM CREDIT REQUIREMENT IN M.TECH PART FOR GRADUATION:**

PG Coursework : 63 Credits  
Thesis Component : 72 Credits

**REMARKS:**

- 1) Upto one PG course may be replaced with a UG course on advice of the thesis supervisor.
- 2) Upto 45 OE credits and 09 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. All other BT requirements have to be fulfilled as per the CE BT template.
- 3) Students opting for the dual degree programme within CE are allowed to take CE491 and/or CE492 as DE from Basket B or as OE.
- 4) There are no compulsory courses.

BT-MT (Category – B) (from other departments)					Template No. CE-3	
Sl. No.	Specialization	Eligible BT/BS Background	Compulsory Courses		Elective Credits	Thesis Credits
			UG Pre-Requisites	PG Courses		
1.	ENVIRONMENTAL ENGINEERING	BSBE, CHE, CHM, ECO, ME, MME, MTH, PHY	-	CE664A CE665A CE666A CE667A CE668A	Compulsory + Elective Credits = 63	M.Tech. Thesis [72]
2.	GEOINFORMATICS	CSE, MTH, PHY	CE331A	CE671A CE677A	Compulsory + Elective Credits = 63	M.Tech. Thesis [72]
3.	HYDRAULICS AND WATER RESOURCES	AE, CHE, ME	-	CE610A CE611A CE612A CE613A	Compulsory + Elective Credits = 63	M.Tech. Thesis [72]
4.	TRANSPORTATION ENGINEERING	AE, ECO*, ME, MTH*, PHY*	ESO202A*  *ECO, MTH, PHY students	CE682A OR CE481A CE683A CE689A OR CE688A CE690A	Compulsory + Elective Credits = 63	M.Tech. Thesis [72]
5.	INTERDISCIPLINARY	-	To be decided by advisor(s).			M.Tech. Thesis [72]

**MINIMUM CREDIT REQUIREMENT IN M.TECH PART FOR GRADUATION:**

PG Component : 63 Credits (common for all specializations)  
Thesis Component : 72 Credits (common for all specializations)

**Remarks:**

- Up to 2 UG courses may be taken for PG credit (including the optional PG-8) on advice of the thesis supervisor.
- 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.

C  O  U  R  S  E  S	DOUBLE MAJOR		Template No. CE-4	
	Odd Semester		Even Semester	
	Pre-Requisites			
	ESO204A/ ME231 [11]			
	ESO202A [11]			
	22			
	MANDATORY CE COURSES			
	CE311A [12]		CE242A [11]	
	CE241A [09]		CE262A [08]	
	CE331A [11]		CE272A [09]	
	CE351A [08]		CE352A [07]	
	CE361A [06]		CE372A [06]	
	CE371A [06]		CE382A [09]	
	CE DE-A [11]		CE DE-A [11]	
		63		61

**MINIMUM CREDIT REQUIREMENT FOR SECOND MAJOR IN CIVIL ENGINEERING: 124 CREDITS**

**REMARKS:**

- 1) Both DE should be selected from Basket-A (Details of Basket-A are available in CE B.Tech. template)
- 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. CE-5	
Title	Infrastructure Engineering and Management		
C O U R S E S	CE241 [09]	[odd semester]	
	CE640 [06]	[odd semester]	
	CE641a [05]	[odd semester]	
	CE643a [05] or CE644a [05]	[even semester]	
	CE667a [05]	[even semester]	
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