

CIVIL ENGINEERING

Table 1. BT/BS Template for 3 rd to 8 th semester					
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 CE212 (9)*	SCHEME-3 HSS-I [9-11]	ESO208A [11] (E/SO)	SCHEME HSS-II (9)	SCHEME HSS-II (9)	SCHEME HSS-II (9)
ESO202A [11] (E/SO)	ESC201 [14]	CE351 [10] (DC)	CE441M [5] (DC)	DE-5 [9]	DE-8 [9]
MSO203M [6] (E/SO)	TA212 [3] (E/SO)	CE361 [6] (DC)	DE-2 [9]	DE-6 [9]	OE-4 [9]
HSO201 [11] (E/SO)	CE272A [9] (DC)	CE331 [8] (DC)	DE-3 [9]	DE-7 [5]	OE-5 [9]
CE261 [10] (DC)	CE252 [11] (DC)	CE311 [4] (DC)	DE-4 [9]	OE-2 [9]	OE-6 [6]
CE243 [8] (DC)	CE214 [9] (DC)	CE381 [9] (DC)	OE-1 [9]	OE-3 [9]	
CE341 [2] (DC)		DE-1 [9]			
TA211 [3] (E/SO)			UGP-1 (CE332) Extra Credits (DE) [4]		UGP-4 (CE493) Extra Credits (DE) [9]
60	55-57	57	50	50	42

MINIMUM CREDIT REQUIREMENT FOR GRADUATION:

Institute Core (IC)	:	112 Credits
Department Compulsory (DC)	:	91 Credits
Department Elective (DE)	:	68 Credits
Open Elective (OE)	:	51 Credits
E/SO	:	45 Credits
SCHEME	:	54-58 Credits
Total	:	421-425 Credits

REMARKS:

- 1) *All CE student must opt for environment part from the EME basket in semester 3
 - 2) Students need to ensure that the courses chosen as DE must include
 - i) at least one course from CE371 and CE372, and
 - ii) at least one course from CE412, CE432, CE462, CE481.
 - iii) Total DE credits should be minimum of 68.
 - 3) The DE basket may also contain departmental PG courses. However, some of the 300 level DE courses are pre-requisite to those PG courses
 - 4) UGP-1 and UGP-4 do not count towards DE/OE credits or minimum graduation requirements.
 - 5) Courses that are mandatorily offered in DE:
 - Odd semester – CE371, CE481.
 - Even semester – CE372, CE334, CE362, CE382, CE412, CE462, CE432.
 - Other courses – CE491, CE492, CE605, CE606.
- “Eligible and interested students can take CE332 as UGP-I, CE491 as UGP-2, CE492 as UGP-3 and CE493 as UGP-4”.

Table 2. BTH Template for 3 rd to 8 th					
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 CE212 [9]*	SCHEME-3 HSS-I [9-11]	ESO208A [11] (E/SO)	SCHEME HSS-II (9)	SCHEME HSS-II (9)	SCHEME HSS-II (9)
ESO202A [11] (E/SO)	ESC201 (14)	CE351 [10] (DC)	CE441M [5] (DC)	DE-5 [9]	DE-9 [9]
MSO203M [6] (E/SO)	TA212 [3] (E/SO)	CE361 [6] (DC)	DE-2 [9]	DE-6 [9]	OE-4 [9]

HSO201 [11] (E/SO)	CE272 [9] (DC)	CE331 [8] (DC)	DE-3 [9]	DE-7 [5]	OE-5 [9]
CE261 [10] (DC)	CE252 [11] (DC)	CE311 [4] (DC)	DE-4 [9]	OE-2 [9]	OE-6 [6]
CE243 [8] (DC)	CE214 [9] (DC)	CE381 [9] (DC)	OE-1 [9]	OE-3 [9]	DE-10 [9]
CE341 [2] (DC)		DE-1 [9]		DE-8 [9]	DE-11 [9]
TA211 [3] (E/SO)			UGP-1 (CE332) Extra Credits (DE) [4]		UGP-4 (CE493) Extra Credits (DE) [9]
60	55-57	57	50	59	60

REMARKS:

- 1) *All CE student must opt for environment part from the EME in semester 3
- 2) Students need to ensure that the courses chosen as DE must include
 - i. at least one course from CE371 and CE372, and
 - ii. at least one course from CE412, CE432, CE462, CE481;
 - iii. **two UGPs (CE491 and CE492); and**
 - iv. **minimum 27 credits of DE (6/7 level) courses.**
 - v. Total DE credits should be minimum of 95.
- 3) The DE basket may also contain departmental PG courses. However, some of the 300 level DE courses are pre-requisite to those PG courses.
- 4) UGP-1 and UGP-4 do not count towards DE/OE credits or minimum graduation. requirements.
- 5) **CPI criteria for BTH: 8.5**
- 6) Courses that are mandatorily offered in DE:
 - Odd semester – CE371, CE481.
 - Even semester – CE372, CE334, CE362, CE382, CE412, CE462, CE432
 - Other courses – CE491, CE492, CE605, CE606.

Table 3. BTM Template for 3rd to 8th semester

Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 CE212 [9]*	SCHEME-3 HSS-I [9-11]	ESO208A [11] (E/SO)	SCHEME HSS-II [9]	SCHEME HSS-II [9]	SCHEME HSS-II [9]
ESO202 [11] (E/SO)	ESC201 [14]	CE351 [10] (DC)	CE441M [5] (DC)	MTB-1 [9]	MTB-4 [9]
MSO203M [6] (E/SO)	TA212 [3] (E/SO)	CE361 [6] (DC)	DE-2 [9]	MTB-2 [9]	MTB-5 [9]
HSO201 [11] (E/SO)	CE272 [9] (DC)	CE331 [8] (DC)	DE-3 [9]	DE-5 [5]	MTB-6 [9]
CE261 [10] (DC)	CE252 [11] (DC)	CE311 [4] (DC)	DE-4 [9]	OE-2 [9]	OE-4 [6]
CE243 [8] (DC)	CE214 [9] (DC)	CE381 [9] (DC)	OE-1 [9]	MTB-3 [9]	
CE341 [2] (DC)		DE-1 [9]			
TA211 [3] (E/SO)			UGP-1 (CE332) Extra Credits (DE) [4]		UGP-4 (CE493) Extra Credits (DE) [9]
60	55-57	57	50	50	42

REMARKS:

- 1) *All CE student must opt for environment part from the EME basket in semester 3.
- 2) Students need to ensure that the courses chosen as DE must include
 - i. at least one course from CE371 and CE372, and
 - ii. at least one course from CE412, CE432, CE462, CE481.
 - iii. Total DE credits should be minimum of 41.
- 3) The DE basket may also contain departmental PG courses. However, some of the 300 level DE courses are pre-requisite to those PG courses.
- 4) UGP-1 and UGP-4 do not count towards DE/OE credits or minimum graduation requirements.

- 5) Courses that are mandatorily offered in DE:
- Odd semester – CE371, CE481.
 - Even semester – CE372, CE334, CE362, CE382, CE412, CE462, CE432
 - Other courses – CE491, CE492, CE605, CE606

Table 4. BT-MT (PG Part-Category-A) (from the same department)

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.	INFRASTRUCTURE ENGINEERING AND MANAGEMENT	None	63 Credits	M.Tech. Thesis [72]

REMARKS:

- 1) All CE student must opt for environment part from the EME basket in semester 3.
- 2) Up to 42 OE and 14 DE credits may be waived from the minimum BT template requirement.
- 3) Students need to ensure that the courses chosen as DE must include
 - i) at least one course from CE371 and CE372, and
 - ii) at least one course from CE412, CE432, CE462, CE481.
 - iii) Total DE credits should be minimum of 54.
- 4) Minimum 63 credits of PG courses and 72 credits of M.Tech thesis is required.
- 5) Students, opting for the dual degree programme within CE, please check the list of mandatory PG courses for the respective specialization.
- 6) The DE basket may also contain departmental PG courses. However, some of the 300 level DE courses are pre-requisite to those PG courses.
- 7) UGP-1 and UGP-4 do not count towards DE/OE credits or minimum graduation requirements.
- 8) Students opting for the dual degree programme within CE are allowed to take CE491 or CE492 as DEs or as OE
- 9) **Maximum semester load is 45 credits in 9th and 10th semester**
- 10) **Must register for seminar course CE698, preferably in 10th semester.**

Table 5. BT-MT (PG Part-Category-B) 7th to 10th Semester

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		CE664 CE665 CE666 CE667 CE668	Compulsory + PG Elective Credits = 63	MTech Thesis [72]

2.	GEOINFORMATICS	CSE, MTH, PHY	CE331	CE332 (as PG) CE671 CE677	Compulsory + PG Elective Credits = 63	MTech Thesis [72]
3.	HYDRAULICS AND WATER RESOURCES	AE, CHE, ME		CE610 CE611 CE612 CE613	Compulsory + Elective Credits = 63	MTech Thesis [72]
4.	TRANSPORTATION ENGINEERING	AE, ECO*, MTH*, ME, PHY*	ESO202* * For ECO, MTH, PHY	Any two from CE603M, CE604M, and CE605M CE683 CE786 CE787 CE780	Compulsory + Elective Credits = 63	MTech Thesis [72]

REMARKS:

- 1) 36 OE credits waived from the BT/BS program of the parent department.
- 2) 63 credits PG Electives+ Compulsory course may include 1 UG course taken for PG credits on advice of the thesis supervisor.
- 3) Another UG/PG course (over and above the first 63 PG credits) may also be taken for PG credits on advice of the thesis supervisor.
- 4) Maximum semester load is 45 credits in 9th and 10th semester
- 5) Must register for seminar course CE698, preferably in 10th semester.

Table 5. Double Major Template for 7th to 10th semester

Semester 3 – Semester 6	Semester 7	Semester 8	Semester 9	Semester 10
BT/BS Template of Parent Department <u>Pre-Requisites</u> 1) ESO204 or equivalent else CE261 in 7th Sem 2) ESO202 3) CE212 as part of SCHEME else in 7th Sem	CE341 [2] (DC)	CE272 [9] (DC)	CE351 [10] (DC)	CE411M [5] (DC)
	CE243 [8] (DC)	CE252 [11] (DC)	CE361 [6] (DC)	DE-2 [9]
	CE331 [8] (DC)	CE214 [9] (DC)	CE381 [9] (DC)	DE-3 [9]
			CE311 [4] (DC)	DE-4 [9]
			DE-1 [9]	DE-5 [9]
	Other Courses from BT template of parent Department			
	Max 65	Max 65	Max 65	Max 65

REMARKS:

- 1) Students need to ensure that the courses chosen as DE must include –
 - i. at least one course from CE371 and CE372, and
 - ii. at least one course from CE412, CE432, CE462, CE481.
 - iii. Total DE credits should be minimum of 45.
- 2) The DE basket may also contain departmental PG courses. However, some of the 300 level DE courses are pre-requisite to those PG courses.
- 3) UGP-1 and UGP-4 do not count towards DE/OE credits or minimum graduation requirements.
- 4) 36 OE credits waived from the BT/BS program of the parent department.
- 5) Courses that are mandatorily offered in DE:
 - Odd semester – CE371, CE481.
 - Even semester – CE372, CE334, CE362, CE382, CE412, CE462, CE432.
 - Other courses – CE491, CE492, CE605, CE606