Templates for programs Computer science and Engineering (CSE)

Template for the BT program in Computer Science and Engineering

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-1 (9) ELC111/ELC112/ELC113 *	ETH111 (3) **	SCHEME-2 HSS-I (9-11)	SCHEME-3 EME (9-11)	SCHEME-4 HSS-II (9)	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	DE-8 (9)
MTH 111 (6)	MTH 113 (6)	ESC201 (14)	CS220 (13)	CS330 (13)	DE-2 (9-13)	DE-5 (9)	OE-4 (9)
MTH 112 (6)	MTH 114 (6)	ESO207 (12)	CS253 (12)	CS340 (9)	DE-3 (9)	DE-6 (9)	OE-5 (9)
PHY 114 (11)	PHY 113 (11)	CS201 (11)	CS202M (5)	CS345 (9)	DE-4 (9)	DE-7 (9)	OE-6 (9)
PHY 111 (3)	CHM 111 (3)	ESO-2 (9-11)	CS203M (5)	DE-1 (9)	OE-1 (9)	OE-3 (9)	OE-7 (9)
TA 111 (9)	ESC 111 (7)				OE-2 (5-9)		
CHM 112 (4)	ESC 112 (7)						
CHM 113 (4)	LIF111 (6)						
PE111 (3)	PE112 (3)						
55	52	54-58	44-46	49	50-58	45	45

Remarks

− ESO/SO courses are available in 6-14 credits each. ESO207A is compulsory for CSE students in the 3rd semester

− Students can take up to 4 UGPs, but only at most 3 UGPs (27 credits) can be counted towards graduation requirements.

− At least 2 DEs must be selected from Basket – A.

− All the four UGPs are optional.

Credit Table for BT Program in Computer Science and Engineering		
Course type	Recommended Credit range	Minimum Credits required for graduation
Institute Core (IC)	112	112
E/SO	18-45	21-23
Department requirements	144-179	149 (77 DC + 72 DE)
Open electives (OE)	51-57	59-63*
SCHEME	54-58	54-58
Total for 4-year BT/BS	391-420	395-405

* Exceeds the credit range recommended by UGARC

Template for the BTH program in Computer Science and Engineering

Template for 3rd to 8th semester for BTH program in Computer Science and Engineering					
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 HSS-I (9-11)	SCHEME-3 EME (9-11)	SCHEME-4 HSS-II (9)	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	DE-8 (9)
ESC201 (14)	CS220 (13)	CS330 (13)	DE-2 (9-13)	DE-5 (9)	OE-4 (9)
ESO207 (12)	CS253 (12)	CS340 (9)	DE-3 (9)	DE-6 (9)	OE-5 (9)
CS201 (11)	CS202M (5)	CS345 (9)	DE-4 (9)	DE-7 (9)	OE-6 (9)
ESO-2 (9-11)	CS203M (5)	DE-1 (9)	OE-1 (9)	OE-3 (9)	OE-7 (9)
	DEH-1 (9)	DEH-2 (9)	OE-2 (5-9)	DEH-3 (9)	
54-58	53-55	58	50-58	45	45

– CPI Criteria for BTH: Above 8.5

Remarks

– ESO/SO courses are available in 6-14 credits each. ESO207 is compulsory for CSE students in the 3rd semester.

– At least 2 UGPs are compulsory (DE) for BTH

– At least 27 credits of DEH should be completed by taking CS6XX and CS7XX level courses

– Students can take up to 4 UGPs, but only at most 3 UGPs (27 credits) can be counted towards graduation requirements.

– At least 2 DEs must be selected from Basket – A.

Template for the BTM program in Computer Science and Engineering

Template for 3rd to 8th semester for BTM program in Computer Science and Engineering					
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 HSS-I (9-11)	SCHEME-3 EME (9-11)	SCHEME-4 HSS-II (9)	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	OE-2 (9)
ESC201 (14)	CS220 (13)	CS330 (13)	DE-2 (9-13)	DE-4 (9)	OE-3 (9)
ESO207 (12)	CS253 (12)	CS340 (9)	DE-3 (9)	DE-5 (9)	OE-4 (9)
CS201 (11)	CS202M (5)	CS345 (9)	MTB-1 (9)	MTB-3 (9)	MTB-5 (9)
ESO-2 (9-11)	CS203M (5)	DE-1 (9)	MTB-2 (9)	MTB-4 (9)	MTB-6 (9)
			OE-1 (5-9)		
54-58	44-46	49	50-58	45	45

Remarks

– ESO/SO courses are available in 6-14 credits each. ESO207A is compulsory for CSE students in the 3rd semester.

– Students can take up to 4 UGPs, but only at most 3 UGPs (27 credits) can be counted towards graduation requirements.

– At least 2 DEs must be selected from Basket – A.

– All the four UGPs are optional.

Template for five-year dual degree program in Computer Science and Engineering Template for semester 3 to 6 same as the BT program

Semester 7	Semester 8	Summer	Semester 7	Semester 7
SCHEME-6, HSS-II (9)	DE PG-1 (9)	M. Tech Thesis (9)	DE PG-4 (9)	DE PG-6 (9)
DE-5 (9)	DE PG-2 (9)		DE PG-5 (9)	M. Tech Thesis (36)
OE-2 (9)	DE PG-3 (9)		M. Tech Thesis (27)	
DE-6 (9)	M. Tech Thesis (9)			
DE-7 (9)				
DE-8 (9)				
54	36	9	45	45

MINIMUM CREDIT REQUIREMENT IN M. TECH FOR GRADUATION

PG Component: 54 credits Thesis Component: 81 credits

REMARKS:

— Up to 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.

— All other minimum BT credit requirements need to be fulfilled, including those that are slotted in the 7th and 8th semester of the BT template.

Template for double major: second major in Computer Science and Engineering

Odd	Even Semester
CS330(13)	CS202M (5) and CS203M (5)
CS340 (9)	CS220(13)
CS345 (9)	CS253(12)
CS DE-1 (9)	CS DE-2 (9-13)
CS DE-3 (9)	CS DE-4 (9)
49	53-57

– Total mandatory credits for second major in computer science: 102

Course and credit Waiver policy: Following waivers will be granted automatically:

– Course and credits to be waived If the student has done

CS340	MTH401
CS202	MTH302
CS203	MSO201 OR HSO201

– To clarify, if a student gets waiver for all the three courses above, he will need to do only 102- 19=83 credits to finish his/her CSE second major requirement. If a student gets a waiver for CS202 only, he will need to do 102-5=97 credits to finish his/her CSE second major requirement. The table above may be extended in future if other courses similar to those in CSE major template are added/discovered in the other departments. Any other course waivers (without credit waivers) may be recommended by CSE DUGC based on its discretion.

REMARKS:

– Two DEs should be selected from Basket-A (Details of Basket-A are available in CSE B.Tech. template).
– Total CSE-DE credits should be at least 36.
– Up to 36 OE credits may be waived from the parent department BT/BS graduation requirements when they are used to fulfil requirements for the double major.
– *ESO207 is a compulsory course to be done, but its credits will be counted against the ESO requirement of the first major.

<u>Minors in Computer Science and Engineering</u> The minors offered by CSE are listed in the table below.

- For each minor stream, the minimum total credit requirement is 30
- In each minor stream, any related course(s), if not mentioned in the list of optional courses, may be taken as optional with the permission of the CSE DUGC
- The course ESO207 can be waived if the student has done an equivalent course. CSE DUGC convener can give more information about it.