

### Templates for programs Electrical Engineering (EE)

#### Template for the BT program in Electrical 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)	DE-1 (9) **	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)
MTH 111 (6)	MTH 113 (6)	ESC201 (14)	EE210 (11)	EE320 (11)	DE-2 (9) **	OE-2 (9)	DE-3 (9)
MTH 112 (6)	MTH 114 (6)	EE200 (11)	EE250 (11)	EE330 (11)	EE340 (11)	OE-3 (9)	DE/UGP-2 (9)
PHY 113 (11)	PHY 114 (11)	E/SO: TA212 (3)	ESO203 (13)	EE370 (11)	EE381 (12)	OE-4 (9)	OE-5 (9)
PHY 111 (3)	CHM 111 (3)	E/SO-1 (6): MSO202M	E/SO-3 (11) MSO201	EE380 Lab (12)	OE-1 (9)	DE/UGP-1 (9)	OE-6 (9)
TA 111 (9)	ESC 111 (7)	E/SO-2 (6) MSO203M	E/SO: TA211 <sup>§</sup> (3)	EE390 (2)			
CHM 112 (4)	ESC 112 (7)						
CHM 113 (4)	LIF111 (6)						
PE111 (3)	PE112 (3)						
55	52	49-51	58-60	56	50	45	45

\*\*DE-1 and DE-2 (both) should be selected from Basket-A (Basket A: EE311, EE321, EE360, EE301)

Credit Table for BT Program in Electrical Engineering		
Course type	Recommended Credit	Credit requirement for
Institute Core (IC)	112	112
E/SO	18-45	42
Department	144-179	148 (103 DC + 45 DE)
Open electives (OE)	51-57	54
SCHEME	54-58	54-58
Total for 4-year BT/BS	391-420	410-414

Template for BTH program in Electrical Engineering

Template for 3 <sup>rd</sup> to 8 <sup>th</sup> semester for BTH program in Electrical 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)	DE-1 (9)**	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)
ESC201 (14)	EE210 (11)	EE320 (11)	DE-2 (9)**	OE-2 (9)	DE-3 (9)
EE200 (11)	EE250 (11)	EE330 (11)	EE340 (11)	OE-3 (9)	UGP-2 (9)
E/SO: TA202 (3)	ESO203 (13)	EE370 (11)	EE381 (12)	OE-4 (9)	OE-5 (9)
E/SO-1 (6): MSO202M	E/SO-3 (11) MSO201	EE380 Lab (12)	OE-1 (9)	UGP-1 (9)	OE-6 (9)
E/SO-2 (6) MSO203M	E/SO: TA201 (3)	EE390 (2)	DEH-1 (9)	DEH-2 (9)	DEH-3 (9)
49-51	58-60	56	59	54	54

– CPI Criteria for BTH:  $\geq 8.5$

Remarks

- DEH courses should be level 6 or 7 EE courses
- \*\*DE-1 and DE-2 (both) should be selected from Basket-A (Basket A: EE311, EE321, EE360, EE301)
- UGP-1 and UGP-2 are mandatory

Template for BTM program in Electrical Engineering

Template for 3 <sup>rd</sup> to 8 <sup>th</sup> semester for BTM program in Electrical 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)	DE-1 (9)**	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)
ESC201 (14)	EE210 (11)	EE320 (11)	DE-2 (9)**	OE-2 (9)	MTB-3 (9)
EE200 (11)	EE250 (11)	EE330 (11)	EE340 (11)	OE-3 (9)	MTB-4 (9)
E/SO: TA202 (3)	ESO203 (13)	EE370 (11)	EE381 (12)	MTB-1 (9)	MTB-5 (9)
E/SO-1 (6): MSO202M	E/SO-3 (11) MSO201	EE380 Lab (12)	OE-1 (9)#	MTB-2 (9)	MTB-6 (9)
E/SO-2 (6) MSO203M	E/SO: TA201 (3)	EE390 (2)			
49-51	58-60	56	50	45	45

Remark:

- \*\*DE-1 and DE-2 (both) should be selected from Basket-A (Basket A: EE311, EE321, EE360, EE301)
- MTB courses must be taken from the management course basket.
- # Students planning to convert to BTM-MT program should take OE-1 from the management

Template for five-year dual degree program in Electrical Engineering

Template for 3 <sup>rd</sup> to 10 <sup>th</sup> semester for five-year BT-MT program in Electrical Engineering								
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8	Summer	Semester 9	Semester 10
SCHEME-2 HSS-I (9-11)	SCHEME-3 EME (9-11)	SCHEME-4 HSS-II (9)	DE-1 (9)**	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	M.Tech Thesis (9) EE699	M.Tech Thesis (27) EE699	M.Tech Thesis (36) EE699
ESC201 (14)	EE210 (11)	EE320 (11)	DE-2 (9)**	OE-2 (9)	OE-4 (9)		PG-6 (9)	
EE200 (11)	EE250 (11)	EE330 (11)	EE340 (11)	OE-3 (9)	OE-5 (9)			
E/SO: TA212 (3)	ESO203 (13)	EE370 (11)	EE381 (12)	DE/UGP-1 (9)	PG-3 (9)			
E/SO-1 (6): MSO202M	E/SO-3 (11) MSO201	EE380 Lab (12)	OE-1 (9)	DEPG-1 (9)	PG-4 (9)			
E/SO-2 (6) MSO203M	E/SO: TA211 (3)	EE390 (2)		DEPG-2 (9)	PG-5 (9)			
49-51	58-60	56	50	54	54	9	36	36

Remarks:

- \*\*DE-1 and DE-2 (both) should be selected from Basket-A (Basket A: EE311, EE321, EE360, EE301)
- Minimum Credit Requirement in MTech Part for Graduation: PG component: 54 Credits; Thesis Component: 72 Credits
- PG-3, 4, 5 & 6 are to be taken with the permission of thesis supervisor.
- Total minimum BT-MT dual degree (Category A) credit requirement will be 509
- 18 DE credits and 9 Oe credits may be waived off in the UG part

Template for 3 <sup>rd</sup> to 10 <sup>th</sup> semester for five-year BTH-MT program in Electrical Engineering								
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8	Summer	Semester 9	Semester 10
SCHEME-2 HSS-I (9- 11)	SCHEME-3 EME (9- 11)	SCHEME-4 HSS-II (9)	DE-1 (9) **	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	M.Tech Thesis (9) EE699	M.Tech Thesis (27) EE699	M.Tech Thesis (36) EE699
ESC201 (14)	EE210 (11)	EE320 (11)	DE-2 (9) **	OE-2 (9)	DE-3 (9)		PG-6 (9)	
EE200 (11)	EE250 (11)	EE330 (11)	EE340 (11)	OE-3 (9)	UGP-2 (9)			
E/SO: TA212 (3)	ESO203 (13)	EE370 (11)	EE381 (12)	UGP-1 (9)	DEH-3 (9)			
E/SO-1 (6): MSO202M	E/SO-3 (11) MSO201	EE380 Lab (12)	OE-1 (9)	DEH-2 (9)	PG-3 (9)			
E/SO-2 (6) MSO203M		EE390 (2)	DEH-1 (9)	DEPG-1 (9)	PG-4 (9)			
	E/SO: TA211 (3)			DEPG-2 (9)	PG-5 (9)			
49-51	58-60	56	59	63	63	9	36	36

Remarks:

- \*\*DE-1 and DE-2 (both) should be selected from Basket-A (Basket A: EE311, EE321, EE360, EE301)
- DEH should be from level 6 or 7 EE Courses
- Minimum Credit Requirement in MTech Part for Graduation: PG component: 54 Credits; Thesis Component: 72 Credits
- PG-3, 4, 5 & 6 are to be taken with the permission of thesis supervisor.
- Total minimum BTH-MT dual degree (Category A) credit requirement will be 536 with graduating CPI  $\geq$  8.5 in BTH part
- 18 DE credits and 9 Oe credits may be waived off in the UG part
- UGP-1 and UGP-2 are mandatory

Template for 3 <sup>rd</sup> to 10 <sup>th</sup> semester for five-year BTM-MT program in Electrical Engineering								
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8	Summer	Semester 9	Semester 10
SCHEME-2 HSS-I (9- 11)	SCHEME-3 EME (9- 11)	SCHEME-4 HSS-II (9)	DE-1 (9)**	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	M.Tech Thesis (9) EE699	M.Tech Thesis (27) EE699	M.Tech Thesis (36) EE699
ESC201 (14)	EE210 (11)	EE320 (11)	DE-2 (9)**	MTB-2 (9)	MTB-5 (9)		PG-6 (9)	
EE200 (11)	EE250 (11)	EE330 (11)	EE340 (11)	MTB-3 (9)	MTB-6 (9)			
E/SO: TA212 (3)	ESO203 (13)	EE370 (11)	EE381 (12)	MTB-4 (9)	PG-3 (9)			
E/SO-1 (6): MSO202M	E/SO-3 (11) MSO201	EE380 Lab (12)	MTB-1 (9)	DEPG-1 (9)	PG-4 (9)			
E/SO-2 (6) MSO203M	E/SO: TA211 (3)	EE390 (2)		DEPG-2 (9)	PG-5 (9)			
49-51	58-60	56	50	54	54	9	36	36

Remarks:

- \*\*DE-1 and DE-2 (both) should be selected from Basket-A (Basket A: EE311, EE321, EE360, EE301)
- Minimum Credit Requirement in MTech Part for Graduation: PG component: 54 Credits; Thesis Component: 72 Credits
- PG-3, 4, 5 & 6 are to be taken with the permission of thesis supervisor.
- Total minimum BTM-MT dual degree (Category A) credit requirement will be 509
- 18 DE credits and 9 Oe credits may be waived off in the UG part

Template for double major: second major in Electrical Engineering

Template for double major in EE	
Odd Semester	Even Semester
Pre-requisites	
ESO203 (13)	MSO201 (11)
MSO202M (6)	
MSO203M (6)	
Mandatory EE courses	
EE200 (11)	EE210/EE250 (11)
EE320 (11)	Any ONE combination from Basket-B
EE330 (11)	EE DE PG (9) (Optional)
EE370 (11)	
EE380 (12)/EE480 (10)	
EE DE PG (9)/UGP-1 (9) (Optional)	
54-65	44-61

BASKET-B
1. Three PG courses + one course from Basket-A
2. Two PG courses + two courses from Basket-A
3. One PG course + three courses from Basket-A
4. One PG course + two courses from Basket-A + UGP-2
5. Two PG courses + one course from Basket-A + UGP-2
BASKET-A
EE321 (9)
EE301 (9)
EE340 (9)
EE311 (9)
EE360 (9)
EE381 (12)/EE481 (6)

Total mandatory Credits for Second Major in Electrical Engineering: 98 Credits

Remarks: Up to 27 OE credits may be waived from the parent department BT/BS graduation requirements.

ESO203 is a mandatory pre-requisite course for DM.

Minors in Electrical Engineering

Minors				
Minor in Microelectronics/ Digital Systems	Minor in Power	Minor in Communications & Signal Processing	Minor in Controls	Minor in RF & Photonics
EE200 [11]	EE200 [11]	EE200 [11]	EE200 [11]	EE200 [11]
EE210 [11]	EE330 [11]	EE320 [11]	EE250 [11]	EE340 [11]
EE311 [09]/ EE370 [11]	EE360 [09]	EE321 [09]/ EE301 [09]	EE650A [09]	EE612A [09]/ EE642A [09]/ EE648A [09]
31/33	31	31	31	31