EE - B.Tech. in Electrical Engineering
2015 Batch

Semester 1

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	MA1101	Functions of Several Variables	3	1	0	0	6	10	S
2	PH1010	Physics I	3	1	0	0	6	10	S
3	CY1001	Chemistry I	3	1	0	0	6	10	S
4	CS1100	Introduction to Programming	3	0	0	3	6	12	E
5	PH1030	Physics Lab I	0	0	0	3	1	4	S
6	CY1002	Chemistry Lab	0	0	0	3	0	3	S
7	GN1100	Life Skills	0	0	0	0	3	0	
		NCC (NC1010)/ NSO (NS1020)/ NSO (NS1030)	0	0	0	0	2	0	
		Total Credits :						**49**	

Winter

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	WS1010	Workshop I	0	0	0	3	0	3	E

Semester 2

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	MA1102	Series and Matrices	3	1	0	0	6	10	S
2	PH1020	Physics II	3	1	0	0	6	10	S
3	EE2001	Digital Systems & Lab	3	1	1	3	8	16	P
4	EE1101	Signals & Systems	3	1	0	0	6	10	E
5	HS	Humanities 1	3	0	0	0	6	9	H
6	ID1200	Ecology and Environment	0	0	0	0	2	0	
7		NCC (NC1010)/ NSO (NS1020)/ NSO (NS1030)	0	0	0	0	3	0	
		Total Credits :						**55**	

Summer

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	WS1020	Workshop II	0	0	0	3	0	3	E

Semester 3

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EE2015	Electric Circuits & Networks	3	1	1	0	6	11	P
2	EE2016	Microprocessor Theory + Lab	2	0	0	3	7	12	P
3	EE2025	Engineering Electromagnetics	3	1	0	0	6	10	E
4	HS	Humanities 2	3	0	0	0	6	9	H
		Total Credits :	**11**	**2**	**1**	**3**	**25**	**42**	

Semester 4

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EE2005	Electrical Machines & Lab	3	1	1	3	7	15	P
2	EE2019	Analog Systems & Lab	3	1	1	3	9	17	P
3	EE2004	Digital Signal Processing	3	1	1	0	6	11	P
4	EE3001	Solid State Devices	3	1	1	0	6	11	P
5	EE2703	Applied Programming Lab	0	0	0	3	3	6	P
		Total Credits :	**12**	**4**	**4**	**9**	**31**	**60**	

Semester 5

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EE3004	Control Engg	3	1	1	0	6	11	P
2	EE3006	Principles of Measurement	2	0	0	3	3	8	P
3	BT1010	Life sciences	3	0	0	0	6	9	S
		Total Credits :	**8**	**1**	**1**	**3**	**9**	**28**	

Semester 6

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	ME3100	Basic Thermal Engineering	3	1	0	0	6	10	E
		Total Credits :						**10**	

Summer

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EE3500	Summer internship	0	0	0	0	20	0	

Semester 7

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1		Humanities Elective 3	3	0	0	0	6	9	H
		Total Credits :						**9**	

Semester 8

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	HS3050	Professional Ethics	2	0	0	0	0	0	H
		Total Credits :						**0**	

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Credits	49	55+6	42*	60	28*	10*	9*	0*	430

***Please note that the indicated credits are only for core program.**

Category	Engineering (E)	Professional (P)	Humanities (H)	Sciences (S)	Free Elective	Total
Credits	48	118+29+36	27	66+18	88	430

*** Indicated credits are only for core programme. In addition, 171 credits of electives have to be taken in semester III and semesters V-VIII,** of which

a) at least 9 credits should be from Mathematics and

b) at least 9 credits should be from Basic Science courses (Mathematics, Physics, Chemistry or Biological sciences)

c) at least 29 credits should be from Electrical Engineering courses (or equivalent). All elective lab courses will also be eligible.

d) at least 4 courses that together carry at least 36 credits should be taken from courses in the following EE Stream elective basket:

Odd semester:	Even semester:
EE2003 Computer Organization EE3002 Analog Circuits EE3003 Power Systems EE3005 Communication Systems EE3313 Device Modelling EE4502 Optics for Engineers EE5311 Digital IC Design EP3200 Photonics ID4100 Creative Engineering Project	EE3007 RF and Optical Communication EE3110 Probability Foundations for Electrical Engineers EE3203 Power Electronics EE3402 Sensing Techniques and Sensor Systems ID4100 Creative Engineering Project

For the course ID4100 Creative Engineering Project, the project must be on a topic that is core to Electrical Engineering."

^Courses in the stream elective basket other than those chosen to satisfy requirement in (d) above can also be taken as general EE electives to satisfy requirement in (c) above.

Remaining 88 credits can be from any dept. including Electrical Engineering. Electives can be taken subject to a maximum of 60 credits per semester.

Minimum number of credits in each category: S ≥ 84, E ≥ 45, H ≥ 27, P ≥ 180

Suggested:

III sem: 9 Maths elective and 9 Humanities elective credits
V sem: 22 Stream elective credits and 9 other elective credits
VI sem: 14 Stream elective credits, 9 BS elective credits, 9 other elective credits and 9 EE elective credits
VII and VIII sem: 20 EE elective credits and 70 other elective credits

Project: An optional B.Tech project can be taken in lieu of 27 elective credits. Project can be taken in any department including Electrical Engineering. If the project is done in Electrical Engineering dept, 27 credits may be counted against 27 of the 29 Electrical Engineering non-stream elective credits mentioned above.

BTech (honours): (Total credit requirement: 430 + 27 = **457)**

- ***Eligibility***: minimum CGPA of 8.5 at the end of 5th sem without U or W grade in any course. They need to maintain these conditions until graduation.
- ***Extra credit requirement***: B.Tech project worth 27 credits over and above the regular BTech requirement.
- 56 elective credits (instead of 29 for regular B.Tech) to be taken in Electrical department (or equivalent); 27 of those credits to be at the 5000 level or above.