

5-year Integrated M.Tech. Degree Course in
Electronics and Communication Engineering w.e.f. 2025-26 Batch

SEMESTER I

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	15B11MA111	Mathematics-1	BSC	3	1	0	4	4
2.	15B11PH111	Physics-1	BSC	3	1	0	4	4
3.	15B11CI111	Software Development Fundamentals-1	ESC	3	1	0	4	4
4.	15B11HS112	English	HSC	1	0	2	3	2
5.	15B17PH171	Physics Lab-1	BSC	0	0	2	2	1
6.	24B15CS111	Software Development Fundamentals Lab-1	ESC	0	0	2	2	1
7.	18B15GE111	Engineering Drawing & Design	ESC	0	0	3	3	1.5
8.	24B11EC111	Basic Electronics	ESC	3	1	0	4	4
9.	24B15EC111	Basic Electronics Lab	ESC	0	0	2	2	1
		TOTAL					28	22.5

SEMESTER II

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	15B11MA211	Mathematics-2	BSC	3	1	0	4	4
2.	15B11PH211	Physics-2	BSC	3	1	0	4	4
3.	15B11CI211	Software Development Fundamentals -2	ESC	3	1	0	4	4
4.	15B17PH271	Physics Lab-2	BSC	0	0	2	2	1
5.	24B15CS121	Software Development Fundamentals Lab- 2	ESC	0	0	2	2	1
6.	24B16HS111	Life Skills & Professional Communication Lab	HSC	0	0	2	2	Qualifying
7.	18B15GE112	Workshop	ESC	0	0	3	3	1.5
8.	24B11HS111	Universal Human Values (UHV)	HSC	2	1	0	3	3
		TOTAL					24	18.5

SEMESTER III

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	15B11MA301	Probability and Random Processes	BSC	3	1	0	4	4
2.	24B11EC211	Electronic Devices and Circuits	PCC	3	1	0	4	4
3.	18B11EC214	Signals and Systems	PCC	3	1	0	4	4
4.	18B11EC215	Digital Circuit Design	PCC	3	1	0	4	4
5.	19B13BT211	Environmental Studies	OMC	3	0	0	3	Qualif Ying
6.	24B15EC211	Electronic Devices and Circuits Lab	PCC	0	0	2	2	1
7.	18B15EC214	Signals and Systems Lab	PCC	0	0	2	2	1
8.	18B15EC215	Digital Circuit Design Lab	PCC	0	0	2	2	1
9.	15B11HS211	Economics	HSC	2	1	0	3	3
10.	24B17EC211	Summer Training-I (4 weeks)	PRC	-	-	-	-	2
		TOTAL					28	24

SEMESTER IV

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	Xxxxx	HSS Elective-1	HSC	2	1	0	3	3
2.	18B11EC212	Analog and Digital Communication	PCC	3	1	0	4	4
3.	15B11EC411	Analogue Electronics	PCC	3	1	0	4	4
4.	15B11EC413	Digital Signal Processing	PCC	3	1	0	4	4
5.	15B11EC611	Telecommunication Networks	PCC	3	0	0	3	3
6.	18B15EC212	Analog and Digital Communication Lab	PCC	0	0	2	2	1
7.	15B17EC471	Analogue Electronics Lab	PCC	0	0	2	2	1
8.	15B17EC473	Digital Signal Processing Lab	PCC	0	0	2	2	1
9.	Xxxxx	Discipline Elective-1*	PEC	3/2	0	0/2	3/4	3
		TOTAL					27/28	24

* Discipline electives may run in 3 0 0 or 2 0 2 (L T P) mode as per requirement of subject

SEMESTER V

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	25B11CI518	Data Structures and Algorithms Design	PCC	3	1	0	4	4
2.	18B11EC312	Electromagnetic Field Theory	PCC	3	1	0	4	4
3	25B17CI578	Data Structures and Algorithms Design Lab	PCC	0	0	2	2	1
4.	18B15EC312	Electromagnetic Field Theory Lab	PCC	0	0	2	2	1
5.	Xxxxxxxx	Discipline Elective– 2*	PEC	3/2	0	0/2	3/4	3
6	Xxxxxxxx	Discipline Elective – 3*	PEC	3/2	0	0/2	3/4	3
7	Xxxxxxxx	Science Elective	BSC	3	0	0	3	3
8	20B13HS311	Indian Constitution & Traditional Knowledge	OMC	3	0	0	3	Qualify Ing
9	24B17EC311	Summer Training-II (6 weeks)	PRC	0	0	0	0	2
		TOTAL					24/25	21

SEMESTER VI

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	24B31EC313	Advance Wireless Technologies	PCC	3	0	0	3	3
2.	24B12EC314	Introduction to IOT and embedded systems	PCC	3	0	0	3	3
3.	24B12EC313	Digital CMOS VLSI Design	PCC	3	0	0	3	3
4.	Xxxxx	Discipline Elective – 4*	PEC	3/2	0	0/2	3/4	3
5.	Xxxxx	Discipline Elective -5*	PEC	3/2	0	0/2	3/4	3
6.	Xxxxx	Open Elective -1	OEC	2	0	0	2	2
7.	Xxxxx	Selected Value-Added Course	Value added	2	0	0	2	Audit
8.	18B15EC313	Embedded Systems/IOT Lab	PCC	0	0	2	2	1
9.	18B15EC315	VLSI Design Lab	PCC	0	0	2	2	1
10.	24B15HS311	Soft Skill For Employability	HSC	-	-	2	2	1
11.	24B17EC312	Minor Project	PRC	-	-	4	4	2
		TOTAL					29/30	22

SEMESTER VII

Sr. No.	Course Code	Course Title	L	T	P	Total	Credits
1.	Xxxxxx	Discipline Elective – 6	3	0	0	3	3
2.	Xxxxxx	Open Elective – 2	3	0	0	3	3
3.	15B19EC791	Major Project Part-1	0	0	0	8	4
4.	24B17EC411	Summer Training-II (6 weeks)	0	0	0	0	4
5.	17M11EC118	Advanced Digital Signal Processing	3	0	0	3	3
6.	20M51EC122/ 25M31EC111/ 20M41EC117	Flexi Core: Fundamentals of Semiconductor Devices/ Introduction to Robots/ Advanced Digital Communication Systems	3	0	0	3	3
		TOTAL				26	20

SEMESTER VIII

Sr. No.	Course Code	Course Title	L	T	P	Total	Credits
1.	Xxxxxxxxxx	Open Elective -3	3	0	0	3	3
2.	24B17EC412	Major Project Part-2	-	-	-	16	8
3.	Xxxxxxxxxx	M.Tech II Sem Core Course**	3	0	0	3	3
4.	Xxxxxxxxxx	M.Tech II Sem Core Course**	3	0	0	3	3
5.	Xxxxxxxxxx	DE-I(M.Tech)**	3	0	0	3	3
6.	Xxxxxxxxxx	DE-II(M.Tech)**	3	0	0	3	3
7.	Xxxxxxxxxx	DE-III(M.Tech)**	3	0	0	3	3
8.	Xxxxxxxxxx	M. Tech. Audit – I	-	-			Qualifying
		TOTAL				34	26

SEMESTER(Summer) IX

Sr. No.	Course Code	Course Title	L	T	P	Total	Credits
1.	Xxxxxxxxxx	Discipline Elective – 7	3	0	0	3	3
2.	Xxxxxxxxxx	Research Methodology and Intellectual Property Rights	2	0	0	2	2
3.	Xxxxxxxxxx	M.Tech Lab-II	0	0	6	6	3
		TOTAL				11	8

SEMESTER X

Sr. No.	Course Code	Course Title	L	T	P	Total	Credits
1.	Xxxxxxxxxx	M.Tech Open Elective	3	0	0	3	3
2.	Xxxxxxxxxx	DE-IV(M.Tech)**	3	0	0	3	3
3.	Xxxxxxxxxx	DE-V(M.Tech)**	3	0	0	3	3
4.	17M17EC129	PBL-II	0	0	0	4	4
5.		M.Tech Lab-I	0	0	6	6	3
6.		M. Tech. Audit – II					Qualifying
7.	Xxxxxxxxxx	Seminar & Term Paper etc	0	0	0	4	4
		TOTAL				23	20

SEMESTER XI

Sr. No.	Course Code	Course Title	L	T	P	Total	Credits
1.	Xxxxxxxx	Dissertation/ Industrial project/ Entrepreneurial project	0	0	0	20	20
2.	17M11EC120	PBL-I	0	0	0	3	2
		TOTAL				23	22

Note: **As per the choice of M.Tech Specialization

Total Credits for B.Tech. –228

Mandatory Internships/Summer Trainings

Summer Training -I (4 weeks) (In summer vacation after IInd semester)

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	24B17EC211	Inter/Intra institutional activities (Training with higher Institutions; Soft skill training organized by Training and Placement Cell of the respective institutions; contribution at incubation/ innovation /entrepreneurship cell of the institute; participation in conferences/ workshops/ competitions etc.; Learning at Departmental Lab/ Tinkering Lab/ Institutional workshop; Working for consultancy/ research project within the institutes and Participation in all the activities of Institute’s Innovation Council for e.g.: IPR workshop/ Leadership Talks/ Idea/Design/ Innovation/ Business Completion/ Technical Expos etc.)	PRC1	0	0	6	6	2
		TOTAL					6	2

Summer Training -II (6 weeks) (In summer vacation after IVth semester)

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	24B17EC311	Industrial/Govt./ NGO/MSME/Rural Internship/ Innovation /Entrepreneurship (Students may choose either to work on innovation or entrepreneurial activities resulting in start-up or undergo internship with industry/ NGO’s/ Government organizations/ Micro/ Small/Medium enterprises to make themselves ready for the industry. In case student want to pursue their family business and don’t want to undergo internship, a declaration by a parent may be submitted directly to the TPO.)	PRC1	0	0	6	6	2

