4-year B.Tech. degree Course in
B.Tech Electronics and Communication (Advance Communication Technologies) w.e.f. 2024-25 Batch

FIRSTSEMESTER

Sr. No.	Course No.	Title	Course Category	L	T	P	Total	Credits
1.	15B11MA111	Mathematics-1	BSC	3	1	0	4	4
2.	15B11PH111	Physics-I	BSC	3	1	0	4	4
3.	15B11CI111	Software Development Fundamentals (SDF)-I	ESC	3	1	0	4	4
4.	15B11HS112	English	HSC	1	0	2	3	2
5.	15B17PH171	PhysicsLab-1	BSC	0	0	2	2	1
6.	15B17CI171	SDF Lab-I	ESC	0	0	2	2	1
7.	18B15GE112	Workshop	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

SECONDSEMESTER

Sr. No.	Course No.	Title	Course Category	L	T	P	Total	Credits
1.	15B11MA211	Mathematics-2	BSC	3	1	0	4	4
2.	15B11PH211	Physics-2	BSC	3	1	0	4	4
3	15B11CI121	SDF-2	ESC	3	1	0	4	4
4.	15B17PH271	Physics Lab-2	BSC	0	0	2	2	1
5.	15B17CI271	SDF Lab II	ESC	0	0	2	2	1
6.	24B16HS111	Life Skills & Professional Communication Lab	HSC	0	0	2	2	Qualifying
7.	18B15GE111	Engineering Drawing &Design	ESC	0	0	3	3	1.5
8.	24B11HS111	Universal Human Values (UHV)	HSC	2	1	0	3	3
		TOTAL					24	18.5

THIRDSEMESTER

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	Qualifying
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

FOURTHSEMESTER

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.	XXXX	Linear Algebra for signal processing	BSC	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	Telecommunication Networks Lab	PCC	0	0	2	2	1
7	24B35EC212	Mathematical computation using python Lab	PCC	0	0	2	2	1
8	15B17EC473	Digital Signal Processing Lab	PCC	0	0	2	2	1
9	Xxxxx	DE-1*	PEC	3/2	0	0/2	3/4	3
		TOTAL					27	24

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

FIFTHSEMESTER

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	15B11CI518	Data Structures and Algorithms	PCC	3	1	0	4	4
2.	24B31EC311	Wireless and mobile communications	PCC	3	1	0	4	4
3	15B17CI578	Data Structures and Algorithms Lab	PCC	0	0	2	2	1
4.	24B35EC311	Wireless and mobile communications Lab	PCC	0	0	2	2	1
5.	Xxxxxxxxx	DE– 2*	PEC	3/2	0	0/2	3/4	3
6	Xxxxxxxxx	DE– 3*	PEC	3/2	0	0/2	3/4	3
7	Xxxxxxxxx	Science Elective	BSC	3	0	0	3	3
8	18B12HS311	Indian Constitution & Traditional Knowledge	OMC	3	0	0	3	Qualifying
9	24B17EC311	Summer Training-II (6 weeks)	PRC	0	0	0	0	2
		TOTAL					24	21

SIXTH SEMESTER

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	24B31EC312	Advance wireless technologies	PCC	3	0	0	3	3
2.	24B12EC314	Introduction to IOT and embedded systems	PCC	3	0	0	3	3
3.	24B31EC312	Introduction to AI/ML	PCC	3	0	0	3	3
4.	Xxxxx	DE– 4*	PEC	3/2	0	0/2	3/4	3
5.	Xxxxx	DE-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.	24B35EC312	Advance Wireless technology 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	22

SEVENTHSEMESTER

Sr. No.	Course No.	Title	Category	Contact Hours				Credits
				L	T	P	Total	
1.	Xxxxx	DE–6*	PEC	3/2	0	0/2	3/4	3
2.	Xxxxx	OpenElective-2	OEC	3	0	0	3	3
3.	15B19EC791	Major Project Part-1	PRC	0	0		8	4
4.	24B17EC411	Summer Training-III (6 weeks)	PRC	0	0	0	0	4
		TOTAL					14	14

EIGHTHSEMESTER

Sr. No.	Course No.	Title	Category	Contact Hours				Credits
				L	T	P	Total	
1.	Xxxxx	DE-7*	PEC	3/2	0	0/2	3/4	3
2.	Xxxxx	Open Elective-3	OEC	3	-	-	3	3
3.	24B17EC412	Major Project Part-2	PRC	-	-	16	16	8
		TOTAL					22	14

Total Credits for B.Tech. –160

Mandatory Internships/Summer Trainings

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

Sr. No.	Course No.	Title	Course Category	Contact Hours				Credits
				L	T	P	Total	
1.	24B17EC211	Inter/Intra institutional activites (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 eg: 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 fourth 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
		TOTAL					6	2

Summer Training -III (6 weeks) (In summer vacation after sixth semester)

Sr. No.	Course		Course Category	Contact Hours				Credits
	No.	Title		L	T	P	Total	
1.	24B17EC411	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	8	8	4
		TOTAL					8	4