

4-year B. Tech. Electronics and Communication (Advance Communication Technologies)
w.e.f. 2023-24 Batch

FIRST SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	15B11MA111	Mathematics-1	3	1	-	4	4
2.	15B11PH111	Physics-1	3	1	-	4	4
3.	15B11CI111	Software Development Fundamentals-I	3	1	-	4	4
4.	15B11HS112	English	2	1	-	3	2
5.	15B17PH171	Physics Lab-1	-	-	2	2	1
6.	15B17CI171	Software Development Lab-I	-	-	4	4	2
7.	18B15GE112	Workshop			3	3	1.5
		TOTAL				24	18.5

SECOND SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	15B11MA211	Mathematics-2	3	1	-	4	4
2.	15B11PH211	Physics-2	3	1	-	4	4
3.	15B11EC111	Electrical Science-I	3	1	-	4	4
4.	15B11CI211	Software Development Fundamentals-II	3	1	-	4	4
5.	15B17PH271	Physics Lab-2	-	-	2	2	1
6.	15B17EC171	Electrical Science Lab-I	-	-	2	2	1
7.	15B17CI271	Software Development Lab-II	-	-	2	2	1
8.	22B12HS111	Life Skills & Professional Communication Lab			2	2	0
9.	18B15GE111	Engineering Drawing & Design			3	3	1.5
		TOTAL				27	20.5

THIRD SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	15B11MA301	Probability and Random Processes	3	1	-	4	4
2.	18B11EC214	Signals & Systems	3	1	-	4	4
3.	18B11EC215	Digital Circuit Design	3	1	-	4	4
4.	19B13BT211	Environmental Studies	3	-	-	3	Qualifying
5.	18B15EC214	Signals & Systems Lab	-	-	2	2	1
6.	18B15EC215	Digital Circuit Design Lab	-	-	2	2	1
7.	15B11EC211	Electrical Science-II	3	1	-	4	4
8.	15B17EC271	Electrical Science Lab-II	-	-	2	2	1
9.	15B11HS211	Economics	2	1	-	3	3

		TOTAL				28	22
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FOURTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	15B11EC611	Telecommunication and Data networks	2	1	-	3	3
2.	Xxxxx	Linear Algebra	3	0	-	3	3
3.	18B11EC212	Analog and Digital Communication	3	1	-	4	4
4.	15B11EC413	Digital Signal Processing	3	1	-	4	4
5.	Xxxxx	Applied Mathematical Computational lab	-	-	2	2	1
6.	18B15EC212	Communication systems Lab	-	-	2	2	1
7.	15B17EC473	Digital Signal Processing Lab	-	-	2	2	1
8.	Xxxxx	Universal Human Values (UHV)	2	1	-	3	3
9.	15B17EC671	Telecommunication Networks Lab				2	1
		TOTAL				25	21

FIFTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	Xxxxx	HSS Elective-2	3		-	3	3
2.	15B11CI518	Data Structures with C/C++	3		-	3	3
3.	Xxxxx	Wireless and mobile communications	3	-	-	3	3
4.	Xxxxx	Applied Optimization Techniques	3	-	-	3	3
5.	15B19EC591	Minor Project – 1				4	2
6.	15B17CI578	Data Structures and Algorithms Lab	-	-	2	2	1
7.	Xxxxx	Electromagnetic Waves and Antennas Lab	-	-	2	2	1
8.	18B15EC314	Python for Signal Processing & Communication Lab	-	-	2	2	1
9.	Xxxxx	Electromagnetic Waves and Antennas	3	1	-	4	4
10.	Xxxxx	Wireless communication systems lab	-	-	2	2	1
11.	18B12HS311	Indian Constitution & Traditional Knowledge	3	-	-	3	Qualifying
		TOTAL				31	22

SIXTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	Xxxxx	Information coding theory for Wireless communications	3		-	3	3
2.	Xxxxx	Advance wireless technologies	3	-	-	3	3
3.	Xxxxx	Introduction to AI & ML	3	-	-	3	3
4.	Xxxxx	Open Elective - 1	3			3	3
		Selected Value Added Course	2			2	Audit
5.	Xxxxx	Advance wireless technologies Lab	-	-	2	2	1
6.	15B19EC691	Minor Project-2	-	-		4	2
7.	Xxxxx	Introduction to IOT and embedded systems	3	1	-	4	4
8.	18B15EC315	IOT and embedded systems lab	-	-	2	2	1
9.	Xxxxx	HSS Elective - 3	2	1	-	3	3
		TOTAL				29	23

SEVENTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	Xxxxx	5G Wireless Communication System	3			3	3
2.	Xxxxx	3GPP Standards For 5G	3			3	3
3.	Xxxxx	Discipline Elective - 1	3	-	-	3	3
4.	Xxxxx	Open Elective - 2	3		-	3	3
5.	15B19EC791	Major Project Part-1	-	-		8	4
6	Xxxxx	Summer Training Viva	-	-	-	-	Qualifying
		TOTAL				20	16

EIGHTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	Course Code	Title	L	T	P	Total	
1.	Xxxxx	Discipline Elective – 2	3			3	3
2.	Xxxxx	Mm wave and THz communication	3			3	3
3.	Xxxxx	Open Elective -3	3		-	3	3
4.	15B19EC891	Major Project Part-2	-	-		16	8
		TOTAL				25	17

Total Credits for B. Tech. –160

Electives & open electives (DE1 to 2 and OE1 to 3):

1. Network security
2. Introduction to deep learning for wireless communication
3. 5G software development and testing.
4. Introduction to free space optical communication.
5. Data analytics for 5G
6. Cognitive radio networks
7. Cloud computing
8. Corporative communication
9. Introduction to underwater communication
10. Emerging technologies -Beyond 5G
11. RF and Microwave Communication
12. 5G Key Radio Functionalities and Physical Layer

The list will be updated regularly.