

## B.Tech-Biotechnology Programme

### FIRST SEMESTER

Sr.No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11HS111	Life Skills	1	1	-	2	2
2.	15B11MA112	Basic Mathematics-1	3	1	-	4	4
3.	15B11PH112	Physics for Biotechnology	3	1	-	4	4
4.	15B11EC111	Electrical Science-1	3	1	-	4	4
5.	15B11CI111	Software Development Fundamentals-1	3	1	-	4	4
6.	15B11HS112	English	2	1	-	3	3
7.	15B17PH171	Physics Lab-1	-	-	2	2	1
8.	15B17EC171	Electrical Science Lab -1	-	-	2	2	1
9.	15B17CI171	Software Development Lab-1	-	-	4	4	2
		TOTAL				29	25

### SECOND SEMESTER

Sr.No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11HS211	Economics	2	1	-	3	3
2.	15B11MA212	Basic Mathematics-2	3	1	-	4	4
3.	<b>15B11BT212</b>	<b>Biophysical Techniques</b>	3	1	-	4	4
4.	15B11EC213	Basic Electronics	3	1	-	4	4
5.	15B11CI211	Software Development Fundamentals-2	3	1	-	4	4
6.	<b>15B11BT211</b>	<b>Biochemistry</b>	3	1	-	4	4
7.	<b>15B17BT271</b>	<b>Biochemical Techniques Lab</b>	-	-	2	2	1
8.	15B17EC273	Basic Electronics Lab	-	-	2	2	1
9.	15B17CI271	Software Development Lab-2	-	-	2	2	1
		TOTAL				29	<b>26</b>

### THIRD SEMESTER

Sr.No.	Course No. Title		Contact Hours				Credits
			L	T	P	Total	
1.	Xxxxx	HSS Elective - 1	2	1	-	3	3
2.	15B11MA302	Probability and Statistics	3	1	-	4	4
3.	<b>15B11BT311</b>	<b>Thermodynamics &amp; Chemical Processes</b>	3	1	-	4	4
4.	<b>15B11BT312</b>	<b>Microbiology</b>	3	1	-	4	4
5.	<b>15B11BT313</b>	<b>Genetics and Developmental Biology</b>	3	1	-	4	4
6.	15B11GE301	Environmental Science	3	-	-	3	3
7.	<b>15B17BT371</b>	<b>Thermodynamics and Chemical Processes Lab</b>	-	-	2	2	1
8.	<b>15B17BT372</b>	<b>Microbiology Lab</b>	-	-	3	3	1
9.	<b>15B17BT373</b>	<b>Genetics and Developmental Biology Lab</b>	-	-	3	3	1
		TOTAL				30	<b>25</b>

### FOURTH SEMESTER

Sr.No.	Course No. Title		Contact Hours				Credits
			L	T	P	Total	
1.	Xxxxx	HSS Elective – 2	2	1	-	3	3
2.	<b>15B11BT411</b>	<b>Introduction to Bioinformatics</b>	3	1	-	4	4
3.	<b>15B11BT412</b>	<b>Molecular Biology and Genetic Engineering</b>	3	1	-	4	4
4.	<b>15B11BT413</b>	<b>Bioprocess Engineering</b>	3	1	-	4	4
5.	<b>15B11BT414</b>	<b>Immunology</b>	3	1	-	4	4
6.	<b>15B17BT471</b>	<b>Bioinformatics Lab</b>	-	-	2	2	1
7.	<b>15B17BT472</b>	<b>Genetic Engineering Lab</b>	-	-	3	3	1
8.	<b>15B17BT473</b>	<b>Bioprocess Engineering Lab</b>	-	-	2	2	1
9.	<b>15B17BT474</b>	<b>Immunology Lab</b>	-	-	2	2	1
		TOTAL				28	23

### FIFTH SEMESTER

Sr.No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	HSS Elective-3	2	1	-	3	3
2.	<b>15B11BT511</b>	<b>Cell Culture Technology</b>	3	1	-	4	4
3.	<b>15B11BT512</b>	<b>Fermentation and Downstream Processing</b>	3	1	-	4	4
	Xxxx	Selected Foreign Language	2 / 3			2/3	Audit
4.	Xxxxx	Science Elective – 1	3	1	-	4	4
5.	<b>15B19BT591</b>	<b>Minor Project – 1</b>					5
6.	<b>15B17BT572</b>	<b>Fermentation and Downstream Processing Lab</b>	-	-	2	2	1
7.	<b>15B17BT571</b>	<b>Cell culture Lab</b>	-	-	2	2	1
8.	<b>15B17BT573</b>	<b>Plant Tissue Culture Lab</b>		-	2	2	1
9.	<b>15B17CI577</b>	<b>IT Practice Lab (CS/BT)</b>	-	-	2	2	1
		TOTAL				23+	24

### SIXTH SEMESTER

Sr.No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	HSS Elective -4	2	1	-	3	3
2.	<b>15B11BT611</b>	<b>Comparative and Functional Genomics</b>	3	1	-	4	4
3.	Xxxxx	BT Elective - 1	3	1	-	4	4
4.	Xxxxx	BT Elective - 2	3	1	-	4	4
5.	Xxxxx	Science Elective - 2	3	1	-	4	4
		Selected Value Added Course	2 / 3			2/3	Audit
6.	<b>15B17BT671</b>	<b>Comparative and Functional Genomics Lab</b>	-	-	3	3	1
7.	<b>15B19BT691</b>	<b>Minor Project-2</b>	-	-			5
		TOTAL				25+	25

**Students will undergo 6 weeks Industrial Training during Summer Vacation**

### SEVENTH SEMESTER

Sr.No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	BT Elective -3	3	1	-	4	4
2.	Xxxxx	BT Elective -4	3	1	-	4	4
3.	Xxxxx	BT Elective – 5	3	1	-	4	4
4.	Xxxxx	Open Elective – 1	3		-	3	3
5.	<b>15B19BT791</b>	<b>Major Project Part-1</b>	-	-			4
6.	<b>15B19BT792</b>	<b>Term Paper</b>	-	-	-	-	3
7.	<b>15B19BT793</b>	<b>Summer Training Viva</b>	-	-	-	-	2
		TOTAL				15+	24

### EIGHTH SEMESTER

Sr.No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	BT Elective -6	3	1	-	4	4
2.	Xxxxx	BT Elective -7	3	1	-	4	4
3.	Xxxxx	Open Elective – 2	3		-	3	3
4.	<b>15B19BT891</b>	<b>Major Project Part-2</b>	-	-			12
		TOTAL				11+	23