

12.05.18

4 year B. Tech. Degree Course – Biotechnology w.e.f. 2018-19 Batch**FIRST SEMESTER**

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11MA112	Basic Mathematics-1	3	1	-	4	4
2.	15B11PH112	Physics for Biotechnology	3	1	-	4	4
3.	18B11CI111	Fundamentals of Computers & Programming - I	3	1	-	4	4
4.	15B11HS112	English	2	1	-	3	3
5.	15B17PH171	Physics Lab-1	-	-	2	2	1
6.	18B15CI111	Computer Programming Lab-I	-	-	4	4	2
7.	18B15GE112	Workshop			3	3	1.5
		TOTAL				24	19.5

SECOND SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11MA212	Basic Mathematics-2	3	1	-	4	4
2.	15B11PH212	Biophysical Techniques	3	1	-	4	4
3.	15B11EC111	Electrical Science-I	3	1	-	4	4
4.	18B11CI121	Fundamentals of Computers & Programming - II	3	1	-	4	4
5.	18B15BT111	Basic Bioscience Lab	-	-	2	2	1
6.	15B17EC171	Electrical Science Lab-I	-	-	2	2	1
7.	18B15CI121	Computer Programming Lab-II	-	-	2	2	1
8.	18B15GE111	Engineering Drawing & Design			3	3	1.5
		TOTAL				25	20.5

THIRD SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11MA412	Probability and Statistics	3	1	-	4	4
2.	15B11BT211	Biochemistry	3	1	-	4	4
3.	15B11BT311	Thermodynamics and Chemical Processes	3	1	-	4	4
4.	15B11GE301	Environmental Science	3	-	-	3	Qualifying
5.	15B17BT271	Biochemical Techniques Lab	-	-	2	2	1
6.	15B17BT371	Thermodynamics and Chemical Processes 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

FOURTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	HSS Elective – 1	2	1	-	3	3
2.	15B11BT312	Microbiology	3	1	-	4	4
3.	15B11BT313	Genetics and Developmental Biology	3	1	-	4	4
4.	15B11BT411	Introduction to Bioinformatics	3	1	-	4	4
5.	15B17BT372	Microbiology Lab	-	-	2	2	1
6.	15B17BT373	Genetics and Developmental Biology Lab	-	-	2	2	1
7.	15B17BT471	Bioinformatics Lab	-	-	2	2	1
8.	15B11HS111	Life Skills				2	2
		TOTAL				23	20

FIFTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	HSS Elective-2	3		-	3	3
2.	15B11BT412	Molecular biology and Genetic Engineering	3		-	3	3
3.	Xxxxx	Discipline Elective - 1	3	-	-	3	3
4.	Xxxxx	Science Elective	3	-	-	3	3
5.	15B19BT591	Minor Project – 1			4	4	2
6.	15B17BT472	Genetic Engineering Lab	-	-	2	2	1
7.	18B15BT311	Industrial Biotechnology Lab-1	-	-	2	2	1
8.	15B17BT571	Cell Culture Lab	-	-	2	2	1
9.	15B11BT511	Cell Culture Technology	3	1	-	4	4
10.	15B17CI577	IT Practice Lab	-	-	2	2	1
11.	18B12HS311	Indian Constitution & Traditional Knowledge	3	-	-	3	Qualifying
		TOTAL				31	22

SIXTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	15B11BT414	Immunology	3		-	3	3
2.	Xxxxx	Discipline Elective – 2	3	-	-	3	3
3.	Xxxxx	Discipline Elective - 3	3	-	-	3	3
4.	Xxxxx	Open Elective - 1	3			3	3
		Selected Value Added Course	2			2	Audit
5.	15B17BT474	Immunology Lab	-	-	2	2	1
6.	15B19BT691	Minor Project-2	-	-	4	4	2
7.	15B11BT611	Comparative and Functional Genomics	3	1	-	4	4
8.	15B17BT671	Comparative and Functional Genomics Lab	-	-	2	2	1
9.	Xxxxx	HSS Elective - 3	2	1	-	3	3
		TOTAL				27/29	23

1. Fermentation and DSP (15B11BT512)/ 15B11BT512 FERMENTATION AND DOWNSTREAM PROCESSING
2. Bioprocess Engineering (15B11BT413)
3. Animal and Plant Biotechnology
4. Enzyme Technology

1. Students may opt to study Selected Foreign Language during 5th semester as an additional course of 2 credits not to be counted towards CGPA calculation. Those who qualify will be provided with additional certificate.
2. All students will undergo Value Added Course, however it will not count for CGPA calculations and will not be reflected in transcript of those students who fail to qualify. Those who qualify will be provided with additional certificate.
3. Students will undergo 6 weeks Industrial Training during Summer Vacation after 6th Semester.

SEVENTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	Discipline Elective – 4	3			3	3
2.	Xxxxx	Discipline Elective – 5	3			3	3
3.	Xxxxx	Discipline Elective - 6	3	-	-	3	3
4.	Xxxxx	Open Elective - 2	3		-	3	3
5.	15B19BT794	Major Project Part-1	-	-	8	8	4
6.	15B19BT793	Summer Training Viva	-	-	-	-	Qualifying
		TOTAL				20	16

EIGHTH SEMESTER

Sr. No.	Course		Contact Hours				Credits
	No.	Title	L	T	P	Total	
1.	Xxxxx	Discipline Elective – 7	3			3	3
2.	Xxxxx	Discipline Elective - 8	3			3	3
3.	Xxxxx	Open Elective -3	3		-	3	3
4.	15B19BT891	Major Project Part-2	-	-	16	16	8
		TOTAL				25	17

Total Credits for B. Tech. –160