

**DEPARTMENT OF BIOTECHNOLOGY
DELHI TECHNOLOGICAL UNIVERSITY**

**SCHEME OF TEACHING AND EVALUATION FOR 1 YEAR M.Sc. BIOTECHNOLOGY
PROGRAM AS PER NEP-2020**

Option 1: Only Course Work

Teaching Scheme					Contact Hours/ Week			Relative Weightage (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	CW S	PRS/ STS/ CM S	MT E	ETE	PRE
SEMESTER I												
1.	MSBT 101	Biochemistry	DCC	4	3	0	2	15	25	20	40	-
2.	MSBT 103	Cell and Developmental Biology	DCC	4	3	1	0	25	-	25	50	-
3.	MSBT 105	Molecular Biology	DCC	4	3	0	2	15	25	20	40	-
4.	MSBT 107	Analytical Techniques	DCC	4	3	0	2	15	25	20	40	-
5.	MSBT 109	Enzyme Technology and Industrial Applications	DCC	4	3	1	0	25	-	25	50	-
6.	MSBT XXX		DEC1	4	3	1	0	25	-	25	50	-
		TOTAL CREDITS		24								
SEMESTER II												
7.	MSBT 102	Immunology	DCC	4	3	0	2	15	25	20	40	-
8.	MSBT 104	Microbiology and Industrial Applications	DCC	4	3	0	2	15	25	20	40	-
9.	MSBT 106	Genetic Engineering	DCC	4	3	0	2	15	25	20	40	-

10.	MSBT 108	Genetics	DCC	4	3	1	0	25	-	25	50	-
11.	MSBT 110	Advanced Environmental Biotechnology	DCC	4	3	0	2	15	25	20	40	-
12.	MSBT XXX		DEC2	2	0	0	4	-	50	-	-	50
		TOTAL CREDITS		22								

Option 2: Course Work & Research

Teaching Scheme					Contact Hours / Week			Relative Weightage (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	CW S	PRS/ STS/ CM S	MT E	ETE	PR E
SEMESTER I												
	MSBT 101	Biochemistry	DCC	4	3	0	2	15	25	20	40	-
	MSBT 103	Cell and Developmental Biology	DCC	4	3	1	0	25	-	25	50	-
	MSBT 105	Molecular Biology	DCC	4	3	0	2	15	25	20	40	-
	MSBT 107	Analytical Techniques	DCC	4	3	0	2	15	25	20	40	-
	MSBT 109	Enzyme Technology and Industrial Applications	DCC	4	3	1	0	25	-	25	50	-
	MSBT XXX		DEC1	4	3	1	0	25	-	25	50	-
		TOTAL CREDITS		24								
SEMESTER II												
	MSBT	Research Thesis / Project work		22	--	--	--	--	40	--	--	60
		TOTAL CREDITS		22								

Option 3: Only Research

Teaching Scheme					Contact Hours / Week			Relative Weightage (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	CW S	PRS/ STS/ CM S	MT E	ETE	PR E
SEMESTERS I & II												
	MSBT	Research Thesis / Project work	--	46	--	--	--	--	40	--	--	60
		TOTAL CREDITS		46								

List of Departmental Elective Courses (DECs)

S.No.	Course Code	Course Title	DEC
1.	MSBT 201	Bioprocess Engineering & Technology	DEC 1 (4 Cr)
2.	MSBT 203	Genomics and Proteomics	
3.	MSBT 205	IPR & Biosafety	
4.	MSBT 207	Healthcare Biotechnology	
5.	MSBT 215	Plant Biotechnology	
6.	MSBT 217	Molecular Therapeutics	
7.	MSBT 225	Animal Biotechnology	
8.	MSBT 202	Advances in Computational Biology	
9.	MSBT 204	Nanobiotechnology	
10.	MSBT 206	Medical Biotechnology	
11.	MSBT 220	Downstream Processing and Bioseparation	
12.	MSBT 111	Cell Culture and Diagnostic Techniques	DEC 2 (2 Cr)
13.	MSBT 112	Food Biotechnology	
14.	MSBT 114	Molecular and Genetic Techniques	
15.	MSBT 116	Techniques in Protein Biology	
16.	MSBT 118	Upstream Processing in Biotechnology	
17.	MSBT 228	Environmental and Emerging Biotechnological Techniques	
18.	MSBT 230	Database Management in Biotechnology	
19.	MSBT 232	Algal Biotechnology	
20.	MSBT 234	Machine Learning in Biotechnology	
21.	MSBT 236	Industrial Skills and Quality Control	