

**DELHI TECHNOLOGICAL UNIVERSITY**  
**SCHEME OF TEACHING AND EVALUATION**  
**MASTER OF TECHNOLOGY IN BIOINFORMATICS ( BIO )**

The following alphanumeric coding scheme has been adopted

Core Courses XXXYMN

Elective Courses XXXYCMN

XXX abbreviates a particular M. Tech. program, Y – (5 for M. Tech. 1 st year, 6 for M. Tech. 2 nd year),

C – credit of the course (4/3/2),

MN – Subject code (Odd number for odd semester and even number for even semester courses)

<b>Semester-I</b>														
	S. No.	Course Code	Course Name	Type/ Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE	Total Credits
<b>Group A</b>	1	BIO501	Introduction to Bioinformatics	Core	4	3	0	2	15	25	20	40	-	<b>17</b>
	2	BIO503	Advanced Proteomics	Core	4	3	0	2	15	25	20	40	-	
<b>Group B</b>	3	BIO5401/5403/.....	Elective 1	Elective	4	3/4	0	2/ 0	15/ 20	25/ -	20/ 30	40/50	-	
	4	BIO5301/5303/.....	Elective 2	Elective	3	3	0/1	2/ 0	15/ 20	25/ -	20/ 30	40/50	-	
	5	BIO5201/5203/..... /UEC5201/5203/.....	Elective 3/ University Elective I	Elective	2	2	0	0	20	-	30	50	-	
<b>Semester-II</b>														
	S. No.	Course Code	Course Name	Type/ Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE	Total Credits
<b>Group C</b>	1	BIO502	Advances in Bioinformatics	Core	4	3	0	2	15	25	20	40	-	<b>17</b>
	2	BIO504	High Throughput Structural Biology	Core	4	3	0	2	15	25	20	40	-	
<b>Gr ou</b>	3	BIO5402/5404/.....	Elective 4	Elective	4	3/4	0	2/ 0	15/ 20	25/ -	20/ 30	40/50	-	

4	BIO5302/5304/.....	Elective 5	Elective	3	3	0	0	20	-	30	50	-	
5	BIO5202/5204/...../ UEC5202/5204/.....	Elective 6/ University Elective II	Elective	2	2	0	0	20	-	30	50	-	

### Semester-III

S.N o.	Course Code	Course Name	Type/ Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE	Total Credits
<b>Track 1</b>													<b>12</b>
1	BIO651	Research Project	Core	2 <sup>1</sup> <sub>2</sub>	0	0	2 <sup>1</sup> <sub>2</sub>	0	-	0	100	0	
<b>Track 2</b>													
1	BIO601	Major Project I	Core	3						40	60		<b>12</b>
2	BIO6401/6403/.....	Elective 7	Elective	4	3/4	0	2/ 0	15/ 20	25/ 0	20/ 30	40/50	-	
3	BIO6301/6303/.....	Elective 8	Elective	3	3	0	0	20	0	30	50	-	
4	BIO6201/6203/.....	Elective 9	Elective	2	2	0	0	20	-	30	50	-	

### Semester-IV

S.N o.	Course Code	Course Name	Type/ Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE	Total Credits
<b>Track 1</b>													
1	BIO652	Research Project	Core	2 <sup>1</sup> <sub>2</sub>	0	0	2 <sup>1</sup> <sub>2</sub>	0	-	0	100	0	<b>12</b>
<b>Track 2</b>													
1	BIO602	Major Project II	Core	2 <sup>1</sup> <sub>2</sub>	0	0	2 <sup>1</sup> <sub>2</sub>	0	-	0	100	0	<b>12</b>

**LIST OF ELECTIVES :**

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	S.No.	Course Code	Course Name	Type/Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE
<b>Elective 1</b>	1	BIO5401	Computer Graphics	Elective	4	3	0	2	15	25	20	40	-
	2	BIO5403	Computer Aided Drug Design		4	3	0	2	15	25	20	40	-
	3	BIO5405	Pharmacogenomics and Personalized Medicine		4	3	0	2	15	25	20	40	-
	4	BIO5407	OMICS in Medicine		4	4	0	0	20	-	30	50	-
	S.No.	Course Code	Course Name	Type/Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE
<b>Elective 2</b>	1	BIO5301	Data Warehousing and Data Mining	Elective	3	3	0	0	20	-	30	50	-
	2	BIO5303	Genomics: From Human Genome Project to Medical Applications		3	3	0	0	20	-	30	50	-
	3	BIO5305	Combinatorial Methods in Biopharmaceuticals		3	3	0	0	20	-	30	50	-
	4	BIO5307	Microarray Technology		3	3	0	0	20	-	30	50	-
	S.No.	Course Code	Course Name	Type/Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE
<b>Elective 3</b>	1	BIO5201	Open Area Seminar - I		2	2	0	0		-	100		-
	2	BIO5203	Analysis of Biological System	Elective	2	2	0	0	20	-	30	50	-
	3	BIO5205	Plant Bioinformatics		2	2	0	0	20	-	30	50	-
	4	BIO5207	Database Management System		2	2	0	0	2	-	100	-	-
	S.No.	Course Code	Course Name	Type/Area	Cr	L	T	P	CWS	PRS	MTE	ETE	PRE
<b>Elective 4</b>	1	BIO5402	Advanced Genetic Engineering	Elective	4	3	0	2	15	25	20	40	-
	2	BIO5404	Systems Biology		4	3	0	2	15	25	20	40	-

	3	BIO5406	Web Application Development		4	3	0	2	15	25	20	40	-
	4	BIO5408	Image Processing in Medicine		4	4	0	0	20	-	30	50	-
	<b>S.No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Type/Area</b>	<b>Cr</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CWS</b>	<b>PRS</b>	<b>MTE</b>	<b>ETE</b>	<b>PRE</b>
<b>Elective 5</b>	1	BIO5302	Minor Project	Elective	3	3	0	0	-	-	40	60	-
	2	BIO5304	Medical Bioinformatics		3	3	0	0	20	-	30	50	-
	3	BIO5306	Pharmacoinformatics		3	3	0	0	20	-	30	50	-
	4	BIO5308	Immunoinformatics		3	3	0	0	20	-	30	50	-
	<b>S.No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Type/Area</b>	<b>Cr</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CWS</b>	<b>PRS</b>	<b>MTE</b>	<b>ETE</b>	<b>PRE</b>
<b>Elective 6</b>	1	BIO5202	Open Area Seminar-II	Elective	2	2	0	0	-	-	100		-
	2	BIO5204	Python programming for Bioinformatics		2	2	0	0	20	-	30	50	-
	3	BIO5206	Bioethics and IPR		2	2	0	0	20	-	30	50	-
	4	BIO5208	Perl Programming for Bioinformatics		2	2	0	0	20	-	30	50	-
	<b>S.No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Type/Area</b>	<b>Cr</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CWS</b>	<b>PRS</b>	<b>MTE</b>	<b>ETE</b>	<b>PRE</b>
<b>Elective 7</b>	1	BIO6401	Drug Design and Discovery	Elective	4	3	0	2	15	25	20	40	-
	2	BIO6403	Neurobiology		4	3	0	2	15	25	20	40	-
	3	BIO6405	Cell and Molecular Biology		4	3	0	2	15	25	20	40	-
	4	BIO6407	Biostatistics		4	4	0	0	20		30	50	-

