

MSc Medical Biotechnology with specialization in Bioinformatics (2-years)							
Curriculum Structure (2026-28)							
SEMESTER I							
S. No.	Course Code	Course Name	Category of Course	L	T	P	Credits
1		Medical Physiology-I	Discipline Core Course 1	3	0	1	4
2		Immunology	Discipline Core Course 2	3	0	2	5
3		Research Methodology	Discipline Core Course 3	2	0	1	3
4		Fundamentals of Molecular Biology	Discipline Core Course 4	3	0	2	5
5		Biochemistry	Discipline Core Course 5	3	0	1	4
6		Bioinformatics Fundamentals and Databases	Discipline Core Course 6	3	0	1	4
		Total		17	0	7	25
SEMESTER II							
S. No.	Course Code	Course Name	Category of Course	L	T	P	Credits
1		Medical Physiology-II	Discipline Core Course 7	3	0	0	3
2		Analytical Techniques	Discipline Core Course 8	3	0	1	4
3		Genetic Engineering	Discipline Core Course 9	3	0	2	5
4		Microbiology	Discipline Core Course 10	4	0	1	5
5		Computer Programming for Bioinformatics	Discipline Core Course 11	2	0	2	4
6		Advanced Bioinformatics and Tool Development	Discipline Core Course 12	3	0	1	4
		Total		18	0	8	25
SEMESTER III							
S. No.	Course Code	Course Name	Category of Course	L	T	P	Credits
1		Genomics and Sequence Analysis	Discipline Core Course 13	3	0	1	4
2		Immunology and Immunoinformatics	Discipline Core Course 14	3	0	1	4

3		Proteomics and Structural Biology	Discipline Core Course 15	3	0	1	4
4		AI&ML in Systems Biology	Discipline Core Course 16	3	0	1	4
5		Bioinformatics in Precision Medicine	Discipline Core Course 17	3	0	1	4
6		From Elective Bucket	Elective	3	0	1	4
		Total		18	0	6	24

SEMESTER IV

S. No.	Course Code	Course Name	Category of Course	L	T	P	Credits
1		Project and Dissertation		0	0	10	10
		TOTAL		0	0	10	10

List of Electives (3rd Sem)

S. No.	Course Code	Course name	L	T	P	C
1		Single-Cell Omics and Analysis	3	0	1	4
2		Computer Aided Drug Discovery	3	0	1	4
3		Metagenomics and Microbiome Analysis	3	0	1	4
4		Machine Learning in Bioinformatics	3	0	1	4
5		Cancer Genomics and Bioinformatics	3	0	1	4
6		Pharmacogenomics and Personalized Medicine	3	0	1	4

After 2 years, Students will get the degree of M.Sc. in Medical Biotechnology with Total Credits =84