

Web Site Address: <https://jmi.ac.in>
Department of Biotechnology
Jamia Millia Islamia, New Delhi
M.Sc. Biotechnology DBT Based Course Structure (4 semester)

Semester I					
Paper code	Papers	Credit	Internal Assessments	Final Exams	Max Marks
MBT-401	Molecular Biology	3	30	45	75
MBT-402	Cell Biology	3	30	45	75
MBT-403	Biochemistry & Biophysics	3	30	45	75
MBT-404	Genetics (CBCE)	4	40	60	100
MBT-405	Immunology	3	30	45	75
MBT-406	Nanobiotechnology	2	20	30	50
MBT-407	Lab course-1	4	50	50	100
MBT-408	Lab course-2	4	50	50	100
Total		26			650
Semester II					
Paper code	Papers	Credit	Internal Assessments	Final Exams	Max Marks
MBT-451	Microbiology	3	30	45	75
MBT-452	Enzymology and Enzyme Technology	3	30	45	75
MBT-453	Animal Biotechnology	3	30	45	75
MBT-454	Genetic Engineering	3	30	45	75
MBT-455	Elective-1*	3	30	45	75
MBT-456	Genomics and Proteomics (SEC)	4	40	60	100
MBT-457	Lab course-3	4	50	50	100
MBT-458	Lab course-4	2	25	25	50
MBT-459	Research Methodology and Scientific Communication skills (VAC)	2			50
MBT-460	Seminar-1 (VAC)	1			25
Total		28			700

*Elective-1: (i) Molecular Physiology, (ii) Vaccines, VAC- Value Added Course

Semester III					
Paper code	JMI-DBT	Credit	Internal Assessments	Final Exams	Max Marks
MBT-531	Bioprocess Engineering and Technology (AECC)	4	40	60	100
MBT-532	Plant Biotechnology	3	30	45	75
MBT-533	Environmental Biotechnology	3	30	45	75
MBT-534	Bioinformatics and Biostatistics	3	30	45	75
MBT-535	Molecular Medicine	3	30	45	75
MBT-536	IPR, Bioethics and Biosafety	2	20	30	50
MBT-537	Elective-2*	2	20	30	50
MBT-538	Lab Course- 5	4	50	50	100
MBT-539	Lab Course- 6	2	25	25	50
MBT-540	Critical analysis of classical papers (VAC)	2			50
MBT-541	Seminar-2 (VAC)	1			25
Total		29			725

Elective-2*: (i) Bioentrepreneurship, (ii) Computational Biology, VAC: Value added course

Semester IV					
Paper code	JMI-DBT	Credit	Internal Assessments	Final Exams	Max Marks
MBT-542	Dissertation	14		350	350
	Thesis defense	3		75	75
	Thesis Evaluation	3		75	75
MBT-543	SWAYAM	2	As per the SWAYAM	As per the SWAYAM	50
Total		22			550