



Department of Biotechnology M. Tech (Medical Biotechnology) Curriculum

Course No	SEM - 1	Type	Credits
BT6390	Advanced Cell Biology	DC	3
BT5013	Biochemistry	DC	3
LA5180	English communication	LA	1
BTXXXX	Departmental Elective	DE	2
BTXXXX	Departmental Elective	DE	2
BTXXXX	Departmental Elective	DE	2
	TOTAL		13

Course No	SEM - 2	Type	Credits
BT6183	Molecular Biotechnology	DC	2
BT6023	Immunology	DC	3
BT6040	BIOINDUSTRY LECTURE	DC	1
BTXXXX	Departmental Elective	DE	2
BTXXXX	Departmental Elective	DE	2
BTXXXX	Departmental Elective	DE	2
BTXXXX	Departmental Elective	DE	1
	TOTAL		13

Course No	SEM - 3	Type	Credits
BT6035	Research Project	Thesis-I	12
	TOTAL		12

Course No	SEM - 4	Type	Credits
BT6045	Research Project	Thesis-II	12
	TOTAL		12

Total Number of Credits: 50* + 1 (+1 is CI101 (Clean India) course of 1 credit which is mandatory)

Departmental elective courses

Course No	SEM - 1	Credits
BT6113	Structural Bioinformatics	2
BT6143	Gene Technology	2
BT6060	Protein Misfolding in Neurodegenerative Diseases	2
BT6123	Cell Technology	2
BT7280	Pharmacology and physiology of Receptors	2
BT6050	Circadian Clocks: Mechanisms and functions	2
BT6303	Proteomics: Techniques and Applications	2
BT6053	Advanced Microscopy and Image Processing	2
BT6330	RNA Biology and Therapeutics	2
BT6240	Structural Biology	2
BT6070	Molecular mechanisms of aging and age-related disorders	2

Course No	SEM - 2	Credits
BT6150	Molecular Basis of Cancer	2
BT6670	Stem cell Biology and Regenerative Medicine	2
BT6133	Protein Technology	2
BT6290	Molecular Machines: DNA interacting Proteins	2
BT7053	Biomolecular NMR	2
BT6180	Macromolecular Crystallography	1
BT5050	Medical Microbiology and Infectious Diseases	2
BT6083	Programming for biomacromolecular data analysis	2
BT6223	Pharmaceutical biotechnology	2
BT6063	Animal models in medical research	1
BT4020	Essential Fatty acids-Biochemistry, physiology and Clinical significance	1
BT5060	Genome Organization and Gene Regulation	2
BT5020	Sequencing Technologies and Precision Medicine	1
BT6010	Critical analysis and presentation of biological literatures	2

SS: soft skill

LA: Liberal arts

DC: Departmental core

DE: Departmental elective

* Total credits should not exceed 55

Other department elective courses

Course No	Semester 1	Credit
BM5050	Introduction to Brain and Neuroscience	1

Course No	Semester 2	Credit
BM5110	Lab on Chip	1
BM5141	Advanced Biomaterials	1
BM6120	Tissue Engineering	2
BM6070	Biomicrofluidics	2
BM6110	Nanomedicine	2
BM 6126	Regenerative medicine	1