

M.Sc Medical Biotechnology

Syllabus Overview

SEMISTER-I										
S.No	Course	Theory/ Practical	Hours Per Week			Total No. of Hours	Credits	CIA	ESE	Total Marks
			L	T	P					
MSC-MBT-501T	Basic Human Biology	Theory	3	0	0	3	3	40	60	100
MSC-MBT-502T	Bioinformatics and Computational Biology	Theory	3	0	0	3	3	40	60	100
MSC-MBT-503T	Basic & Applied Genetic Engineering & Recombinant DNA Technology	Theory	3	0	0	3	3	40	60	100
MSC-MBT-504T	IPR and Entrepreneurship	Theory	2	0	2	4	3	40	60	100
MSC-MBT-601P	Cloning and site-directed mutagenesis	Practical	0	0	6	6	3	50	50	100
MSC-MBT-602P	DNA sequencing and analysis	Practical	0	0	6	6	3	50	50	100
MSC-MBT-603E	Value Added Course - Journal Club Presentations	Skill	1	0	2	3	2	50	50	100
	Total Credits		12	0	16	28	20	310	390	700
SEMISTER-II										
MSC-MBT-505T	Prokaryotic and Eukaryotic Protein Expression	Theory	3	0	0	3	3	40	60	100
MSC-MBT-506T	Protein Extraction and Purification Methods	Theory	3	0	0	3	3	40	60	100
MSC-MBT-507T	Protein Structure-Function Studies	Theory	3	0	0	3	3	40	60	100
MSC-MBT-508T	Elective I	Theory	3	0	0	3	3	40	60	100
MSC-MBT-604P	Protein expression in prokaryotes and eukaryotes	Practical	0	0	6	6	3	50	50	100
MSC-MBT-605P	Protein extraction, purification and Q.A./Q.C.	Practical	0	0	6	6	3	50	50	100
MSC-MBT-606E	Value Added Course - Scientific Writing	Skill	1	0	2	3	2	50	50	100
	Total Credits		13	0	14	27	20	310	390	700

SEMISTER-III										
MSC-MBT-509T	Advanced Immunology and Vaccinology	Theory	3	0	0	3	3	40	60	100
MSC-MBT-510T	Cell Cultures, Cell-based Assays and Biostatistics	Theory	3	0	0	3	3	40	60	100
MSC-MBT-511T	Animal Models and Transgenics	Theory	3	0	0	3	3	40	60	100
MSC-MBT-512T	Elective II	Theory	3	0	0	3	3	40	60	100
MSC-MBT-607P	Mammalian Cell Cultures	Practical	0	0	6	6	3	50	50	100
MSC-MBT-608P	Animal Handling	Practical	0	0	6	6	3	50	50	100
MSC-MBT-609S	Skill enhancement Course - Laboratory Project Management	Skill	1	0	2	3	2	50	50	100
	Total Credits		13	0	14	27	20	310	390	700
SEMISTER-IV										
MSC-MBT-700	Project Work +Viva Voce						12	50	100	150
MSC-MBT-701	Seminar						4	50	50	100
MSC-MBT-702	Paper Publication						4	50	50	100
	Total Credits						20	150	200	350

ELECTIVES
SEMISTER-II
1. Protein Engineering and Proteomics
2. Genomics & DNA finger Printing
SEMISTER-III
1. Cancer Biology and Stem Cell Biology
2. Molecular Diagnostics