

## M. Sc. BIOTECHNOLOGY

### SEMESTER-WISE COURSE INFORMATION

#### SEMESTER I

Course Number	Course Title	Credit Value	# Lec.	#Tu t.	#Lab	Weightage for EoTE/IA	EoTM
MBT101	Biological chemistry	4	3	2	-	0.6/0.4	Univ.
MBT102	Cell Biology	4	3	2	-	0.6/0.4	Univ.
MBT103	Microbiology Basic and Applied	4	3	2	-	0.6/0.4	Univ.
MBT104	Biochemistry lab	3	-	-	4	0.6/0.4	Univ.
MBT105	Cell Biology lab	3	-	-	4	0.6/0.4	Univ.
MBT106	Microbiology lab	3	-	-	4	0.6/0.4	Univ.
MBT 107	Elective-I Nutrition & Diet/Fermentation Technology	2	2	-	-	Continuous Assessment	Institute
MBT 108	Lab Elective-I	2	-	-	3	Continuous Assessment	Institute
MBT109	Personality and Communication Skill Development	2	2	-	-	Continuous Assessment	Institute
MBT110	Group Project	2	-	-	-	Continuous Assessment	Institute

**Total Credits offered in Sem I: 29 (25 Core, 4 Elective)**

**Notations: - Core Course, – Elective Course, - General Course , # - Number**

## SEMESTER II

Course Number	Course Title	Credit Value	# Lec	#Tut.	#Lab	Weightage for EoTE/IA	EoTM
MBT201	Molecular Biology	4	3	2	-	0.6/0.4	Univ.
MBT202	Genetic Engineering & applications	4	3	2	-	0.6/0.4	Univ.
MBT203	Immunology	4	3	2	-	0.6/0.4	Univ.
MBT204	Molecular Biology Lab	3			4	0.6/0.4	Univ.
MBT205	Genetic Engineering Lab	3	-	-	4	0.6/0.4	Univ.
MBT206	Immunology lab	2	-	-	3	0.6/0.4	Univ.
MBT207	Elective-II <b>Virology/Clinical Biochemistry</b>	2	2	-	-	Cont. Assessment	Institute
MBT208	Lab Elective-II	2	-	-	3	Cont. Assessment	Institute
MBT209	Technical Writing	2	2	-	-	Cont. Assessment	Institute
MBT210	Journal club	2	-	-	-	Cont. Assessment	Institute

**Total Credits offered in Sem II: 28 (24 Core, 4 Elective)**

**Notations: - Core Course, – Elective Course,  
– General Course , # - Number**

**SEMSTER III**

<b>Course Number</b>	<b>Course Title</b>	<b>Credit Value</b>	<b># Lec.</b>	<b># Tut.</b>	<b># Lab</b>	<b>Weightage for EoTE/IA</b>	<b>EoTM</b>
MBT301	Environmental Biotechnology	4	3	2	-	0.6/0.4	Univ.
MBT302	Plant Biotechnology	4	3	2	-	0.6/0.4	Univ.
MBT303	Animal Tissue Culture	2	2	-	-	0.6/0.4	Univ.
MBT304	Human Genetics	2	2	-		0.6/0.4	Univ.
MBT305	Environmental Biotech. Lab	3	-	-	4	0.6/0.4	Univ.
MBT306	Plant Biotech. Lab	3	-	-	4	0.6/0.4	Univ.
MBT307	Animal Tissue Culture Lab	2	-	-	3	0.6/0.4	Univ.
MBT308	Genetics Lab	2	-	-	3	0.6/0.4	Univ.
MBT309	Elective-III <b>Floriculture/Food Biotechnology</b>	2	2	-	3	Cont. Assessment	Institute
MBT310	Lab Elective-III	2	-	-	3	Cont. Assessment	Institute
MBT311	Special Topics	2	2		-	Cont. Assessment	Institute
MBT312	Research Methodology	2	2		-	Cont. Assessment	Institute

**Total Credits offered in Sem III: 30 (26 Core, 4 Elective)**

**Notations: - Core Course, – Elective Course,  
– General Course, # - Number**

**SEMSTER IV**

<b>Course Number</b>	<b>Course Title</b>	<b>Credit Value</b>	<b># Lec.</b>	<b>#Tut.</b>	<b>#Lab</b>	<b>Weightage for EoTE/IA</b>	<b>EoTM</b>
MBT401	Specialization Subject*	4	3	2	-	0.6/0.4	Univ.
MBT402	Practical Course in Specialization Subject						
MBT403	Biostatistics	2	2	-	-	0.6/0.4	Univ.
MBT404	Bioinformatics	2	2	-	-	0.6/0.4	Univ.
MBT405	Biostatistics & Bioinformatics Lab	2	-	-	3	0.6/0.4	Univ.
MBT406	Project	10	-	-		0.6/0.4	Univ.
MBT407	Elective-IV <b>Plant breeding &amp; Methodology/Nano-biotechnology</b>	2	2	-	-	Cont. Assessment	Institute
MBT408	Lab Elective-III	2			3	Cont. Assessment	Institute

**Total Credits offered in Sem IV: 27 (16 Core and 11 Elective)**

**Notations: - Core Course, – Elective Course,  
– General Course, # - Number**

**\*Titles of Specialization subjects proposed in Semester IV:**

1. Enzymology and its industrial applications
2. Animal cell culture applications
3. Pharmaceutical and medical microbiology
4. Herbal biotechnology

**Total Credits offered in all four semesters: 114 (91 Core and 23 Elective)**