

**Outcomes Based Education (OBE) Framework**  
**Two Year Full Time Graduate Program**  
**M.Sc. Medical Biotechnology**

FIRST YEAR: Semester: 1					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MBT 501	Cell Biology	3	-	-	3
MBT 503	Biomolecules	3	-	-	3
MBT 505	Human Genetics	3	-	-	3
MBT 507	Molecular Biology-I	3	-	-	3
MBT 509	Human Genetics	-	-	8	3
MBT 511	Molecular Biology	-	-	8	3
MBT 513	Soft Skills (Tutorials/ Seminar/Review paper writing)	-	3	-	2
	<b>Total</b>	<b>12</b>	<b>3</b>	<b>16</b>	<b>20</b>

FIRST YEAR: Semester: 2					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MBT 502	Immunology and Immunogenetics	3	-	-	3
MBT 504	Molecular Medicine	3	-	-	3
MBT 506	Molecular Biology II	3	-	-	3
MBT 508/ MBT 510	Industrial Biotechnology/ Mathematics & R Programming	3	-	-	3
MBT 512	Cell Biology	-	-	8	3
MBT 514	Bioquantitation & Instrumentation	-	-	8	3
MBT 516	Soft Skills (Tutorials/ Seminar/Review paper writing)	-	3	-	2
	<b>Total</b>	<b>12</b>	<b>3</b>	<b>16</b>	<b>20</b>

SECOND YEAR: Semester: 3					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MBT 601	Biostatistics and Bioinformatics	3	-	-	3
MBT 603	Recombinant DNA Technology	3	-	-	3
MBT 605	Research Methodology	3	-	-	3
MBT 607/ MBT 609	Analytical Biochemistry / Quality Assurance & Accreditation	3	-	-	3
MBT 611	Biostatistics and Bioinformatics	-	-	6	2
MBT 613	Laboratory Rotation	-	-	6	2
MBT 615	Review Article	-	-	6	2
MBT 617	Soft Skills (Tutorials/ Seminar/Review paper writing)	-	3	-	2
	<b>Total</b>	<b>12</b>	<b>3</b>	<b>18</b>	<b>20</b>

SECOND YEAR: Semester: 4					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MBT 602	Seminar/Presentation & Progress	-	-	8	4
MBT 699	Research Project/ Submission of dissertation/ Submission of manuscript	-	-	32	16
	<b>Total</b>			<b>40</b>	<b>20</b>