

Outcomes Based Education (OBE) Framework
Two Year Full Time Graduate Program
M.Sc. Tissue Engineering

FIRST YEAR: Semester: 1					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MTE 501	Cell Biology	3	-	-	3
MTE 503	Biomolecules	3	-	-	3
MTE 505	Introduction to Cell and Tissue Engineering	3	-	-	3
MTE 507	Molecular Biology	3	-	-	3
MTE 509	Biomaterials, Scaffolds and Characterization	-	-	8	3
MTE 511	Molecular Biology	-	-	8	3
MTE 513	Soft Skills (Tutorials/ Seminar/Review paper writing)	-	3	-	2
	Total	12	3	16	20

FIRST YEAR: Semester: 2					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MTE 502	Immunology and Immunogenetics	3	-	-	3
MTE 504	Stem Cell Technology and Regenerative Medicine	3	-	-	3
MTE 506	Advanced/Smart Biomaterials and applications	3	-	-	3
MTE 508/ MTE 510	Cancer Biology/ Mathematics & R Programming	3	-	-	3
MTE 512	Cell-Scaffold Construct Generation and its Evaluation	-	-	8	3
MTE 514	Cell Biology	-	-	8	3
MTE 516	Soft Skills (Tutorials/ Seminar/Review paper writing)	-	3	-	2
	Total	12	3	16	20

SECOND YEAR: Semester: 3					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MTE 601	Immune Engineering	3	-	-	3
MTE 603	Biostatistics and Bioinformatics	3	-	-	3
MTE 605	Research Methodology	3	-	-	3
MTE 607/ MTE 609	Ethics of Tissue Engineering Quality Assurance & Accreditation	3	-	-	3
MTE 611	Bioprinting and Bioreactor	-	-	6	2
MTE 613	Laboratory Rotation	-	-	6	2
MTE 615	Mini Project	-	-	6	2
MTE 617	Soft Skills (Tutorials/ Seminar/Review paper writing)	-	3	-	2
	Total	12	3	18	20

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