

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

FIRST YEAR: Semester: 1					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MGE 501	Cell Biology	3	-	-	3
MGE 503	Biomolecules	3	-	-	3
MGE 505	Fundamentals of Genome Engineering	3	-	-	3
MGE 507	Molecular Biology	3	-	-	3
MGE 509	Model Organisms	-	-	8	3
MGE 511	Molecular Biology	-	-	8	3
MGE 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	
MGE 502	Immunology and Immunogenetics	3	-	-	3
MGE 504	Synthetic Biology and Genome Engineering: Health and Disease	3	-	-	3
MGE 506	Tools, Techniques and Models of Genome Engineering	3	-	-	3
MGE 508/ MGE 510/ MGE 512	Cell and Tissue engineering/ Cancer Biology/ Mathematics & R Programming	3	-	-	3
MGE 514	Methods in Genome Engineering I	-	-	8	3
MGE 516	Cell Biology	-	-	8	3
MGE 518	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	
MGE 601	Immune Engineering	3	-	-	3
MGE 603	Biostatistics and Bioinformatics	3	-	-	3
MGE 605	Research Methodology	3	-	-	3
MGE 607/ MGE 609	Ethics of Genome Engineering/ Quality Assurance & Accreditation	3	-	-	3
MGE 611	Methods in Genome Engineering II	-	-	6	2
MGE 613	Laboratory Rotation	-	-	6	2
MGE 615	Mini Project	-	-	6	2
MGE 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	
MGE 602	Seminar/ Presentation & Progress	-	-	8	4
MGE 699	Research Project/ Submission of dissertation/ Submission of manuscript	-	-	32	16
	<b>Total</b>			<b>40</b>	<b>20</b>

