

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

FIRST YEAR: Semester: 1					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MBI 501	Basics of Biocomputing	3	-	-	3
MBI 503	Biological Databases	3	-	-	3
MBI 505	Cell & Molecular Biology	3	-	-	3
MBI 507	Genomics & Proteomics	3	-	-	3
MBI 509	Basics of Biocomputing	-	-	6	2
MBI 511	Biological Databases	-	-	6	2
MBI 513	Research Project I	-	-	4	2
MBI 515	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	
MBI 502	Database & Web Development	3	-	-	3
MBI 504	Bioinformatics Algorithm & Applications	3	-	-	3
MBI 506	Molecular Modelling & Simulation	3	-	-	3
MBI 508/ MBI 510	Mathematics & R Programming (or) Image Processing & R Programming	3	-	-	3
MBI 512	Database & Web Development	-	-	6	2
MBI 514	Algorithms & Modelling	-	-	6	2
MBI 516	Research Project II	-	-	4	2
MBI 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	
MBI 601	Biostatistics & Informatics	3	-	-	3
MBI 603	High-throughput Data Analysis	3	-	-	3
MBI 605	Research Methodology	3	-	-	3
MBI 607/ MBI 609	Computational Biology (or) Quality Assurance & Accreditation	3	-	-	3
MBI 611	Biostatistics	-	-	6	2
MBI 613	Laboratory Rotation	-	-	6	2
MBI 615	Research Project III/Review	-	-	4	2
MBI 617	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: 4					
Course Code	Course Title	No. of hours per week			Credits
		Lecture	Tutorial	Practical	
MBI 602	Seminar/Presentation & Progress	-	-	8	4
MBI 699	Research Project/Submission of dissertation/ Submission of manuscript	-	-	32	16
<b>Total</b>		<b>-</b>	<b>-</b>	<b>40</b>	<b>20</b>