M. SC. BIOINFORMATICS

Postgraduate CBCS Program in Bioinformatics (M.Sc. Bioinformatics)						
Semester/ Duration	**Subject Code**	**Title of the Subject**	**Credits**	**L/P + T / week**	**Weightage for UE/IA**	**Exam Conduction**
	MBI 101	Basic Biosciences	4	3L+1T	0.6/0.4	University
	MBI 102	C programming and Data structure	4	3L+1T	0.6/0.4	University
	MBI 103	Bio-computing and DBMS	4	3L+1T	0.6/0.4	University
	MBI 104	Essential Biomathematics	2	1L+1T	0.6/0.4	University
Semester - I	MBI 105	Biostatistics	2	1L+1T	0.6/0.4	University
	MBI 106	Biological Informatics	4	3L+1T	0.6/0.4	University
Foundation Level	MBI 107 **Elective I**	Bio-physics/ Metabolomics	2	1L+1T	Continuous Assessment	Institute
(16-17 Weeks)	MBI 108	Basic Biosciences Lab I	2	2P	0.6/0.4	University
	MBI 109	C programming and Data structure Lab II	2	2P	0.6/0.4	University
	MBI 110	Bio-computing, DBMS and Biostatistics Lab III	2	2P	0.6/0.4	University
	MBI 111	Biological Informatics Lab IV	2	2P	0.6/0.4	University
			Total = 30 credits (28 Foundation + 2Elective) Hours per day = 7.66 hrs.			**Total = 750**
	MBI 201	Java and Biojava Programming	4	3L+1T	0.6/0.4	University
	MBI 202	Structural Biology & Molecular Modeling	4	3L+1T	0.6/0.4	University
	MBI 203	Genomics & Proteomics	4	3L+1T	0.6/0.4	University
	MBI 204	Perl and Bioperl Programming	4	3L+1T	0.6/0.4	University
Semester - II	MBI 205 **Elective II**	Bio-ethics & IPR/ Immuno-informatics	2	1L+1T	Continuous Assessment	Institute
Core Level (16-17 Weeks)	MBI 206 **Elective III**	Software Engineering / Emerging Trends in Information Technology	2	1L+1T	Continuous Assessment	Institute
	MBI 207	Java and Biojava Programming Lab V	2	2P	0.6/0.4	University

	Course Code	Course Title	Credits	L/T/P	Weightage	Exam
	MBI 208	Structural Biology & Molecular Modeling Lab VI	**2**	**2P**	0.6/0.4	University
	MBI 209	Genomics & Proteomics Lab VII	**2**	**2P**	0.6/0.4	University
	MBI 210	Perl and Bioperl Programming Lab VIII	**2**	**2P**	0.6/0.4	University
	MBI 211 **Elective Lab I**	HTML and XML/ Introduction to Python Lab IX	**2**	**2P**	0.6/0.4	University
			Total = 30 Credits (24 Core + 6 Elective) Hours per day = 8.33 hrs.			**Total = 750**
Semester - III **Advanced Level** (16-17 Weeks)	MBI 301	Scientific Writing Skills	**2**	**1L+1T**	Continuous Assessment	Institute
	MBI 302	Cheminformatics & Drug Design	**4**	**3L+1T**	0.6/0.4	University
	MBI 303	Biological Data Mining	**4**	**3L+1T**	0.6/0.4	University
	MBI 304	Systems Biology	**4**	**3L+1T**	0.6/0.4	University
	MBI 305 **Elective IV**	Recent trends in Bioinformatics/ Commercial Bioinformatics	**4**	**3L+1T**	0.6/0.4	University
	MBI 306 **Elective V**	Bio-diversity Informatics/ Artificial Bio-intelligence	**2**	**1L+1T**	Continuous Assessment	Institute
	MBI 307	Cheminformatics & Drug Design Lab X	**2**	**2P**	0.6/0.4	University
	MBI 308	Biological Data Mining Lab XI	**2**	**2P**	0.6/0.4	University
	MBI 309	Systems Biology Lab XII	**2**	**2P**	0.6/0.4	University
	MBI 310 **Elective Lab II**	Recent trends in Bioinformatics/ Commercial Bioinformatics Lab XIII	**2**	**2P**	0.6/0.4	University
			Total = 28 Credits (20 Core +8 Elective) Hours per day = 7.33 hrs.			**Total = 700**
Semester – IV (16-17 Weeks)	MBI 401	Project	**12**	**12P**	-	University
			Total = 12 Credits Hours per day = 6.00 hrs.			**Total = 600**
M.Sc. Bioinformatics (Sem I to Sem IV) Total: 100 Credits Marks=						**Total 2800**