

5. Programme structure

(MSc MBBT)

Total Credits: 88

Structure of the curriculum

Course category	No of courses	Credits per course	Total Credits
I. Core courses	6	3	18
II. Core Courses	6	2	12
III. Elective courses	7	3	3
IV. Elective courses	1	2	2
V. Project	1	20	20
Total credits			88

6. SEMESTER-WISE SCHEDULE

SEMESTER I

Course type	Course title	Lecture (L)	Tutorial (T)	Practical (P)	Contact Hour(CH)	Credits
Core	BT 441: Biochemistry	3	0	0	3	3
	BT 443: Cell Biology	3	0	0	3	3
	BT 478: Microbiology	3	0	0	3	3
	BT 447: Molecular Genetics	3	0	0	3	3
	BT 453: Lab-I Biochemistry and Analytical Techniques	0	0	3	6	3
	BT 455: Lab-II Microbiology	0	0	3	6	3
	BT 449: Basics of Mathematics and Statistics	2	0	0	2	2
	BT 451: Basics of Chemistry and Physics	2	0	0	2	2

SEMESTER 2

Course type	Course title	Lecture (L)	Tutorial (T)	Practical (P)	Contact Hour(CH)	Credits
Core	BT 440: Molecular Biology	3	0	0	3	3
	BT 442: Immunology	3	0	0	3	3
	BT 444: Developmental Biology	3	0	0	3	3

	BT 448: Genomics and Proteomics	3	0	0	3	3
	BT 450: Lab-III Molecular Biology	0	0	3	6	3
	BT 452: Lab-IV Immunology	0	0	3	6	3
	BT 446: Bioinformatics	2	0	1	5	3
	BT 454: Biophysical methods and emerging technologies	2	0	0	2	2

SEMESTER 3

Course type	Course title	Lecture (L)	Tutorial (T)	Practical (P)	Contact Hour(CH)	Credits
Core	BT 457: Genetic Engineering	3	0	0	3	3
	BT 461: Bioprocess Engineering and Technology	3	0	0	3	3
	BT 471: Lab-V Genetic Engineering	0	0	3	6	3
	BT 473: Lab-VI Bioprocess Engineering and Technology	0	0	3	6	3
	BT 459: Molecular Diagnostics	2	0	0	2	2
	BT 469: Intellectual Property Rights, Biosafety and Bioethics	2	0	0	2	2
	BT 475: Critical analysis of classical papers and scientific communication skills	0	1	1	2	2
Electives	BT 463: Plant Biotechnology	3	0	0	3	3
	BT 465: Animal Biotechnology					
	BT 467: Microbial Biotechnology					
	BT 477: Computational Biology					
	BT 479: Nanobiotechnology					
	BT 499: Environmental Biotechnology					

SEMESTER 4

Course type	Course title	Lecture (L)	Tutorial (T)	Practical (P)	Contact Hour(CH)	Credits
Core	BT 462: Project	0	0	40	40	20
Elective	BT 466: Bioentrepreneurship	2	0	0	2	2