Faculty of Science, Technology and Architecture| School of Engineering
Department of Biotechnology & Chemical Engineering

M.Tech in Computational Biology scheme (Batch 2026 and onwards)

Semester I – (Credits: 24)

Course Code	Course Title	Course Type	L-T-P	Credits
BIO6101	Cell and Molecular Biology	Core	3-1-0	4
CSB6102	Bioinformatics	Core	3-1-0	4
CSB6103	AI/ML for Biological Systems	Core	3-1-0	4
CSB6104	Genomics and Transcriptomics	Core	3-1-0	4
CSB614X	Program Elective I	Elective	3-1-0	4
CSB6130	Computational biology lab-I	Practical	0-0-4	2
CSB6131	Molecular biology lab	Practical	0-0-4	2
Total Credits				24

Semester II – (Credits: 26)

Course Code	Course Title	Course Type	L-T-P	Credits
CSB6201	Biostatistics with R	Core	3-1-0	4
CSB6202	Advanced Multi-Omics & Systems Biology	Core	3-1-0	4
CSB6203	Structural biology	Core	3-1-0	4
CSB6204	Clinical Data Management and Analytics	Core	3-1-0	4
CSB624X	Program Elective II	Elective	3-1-0	4
CSB6230	Computational biology lab-II	Practical	0-0-4	2
CSB6270	Research Practice	Project	0-0-8	4
Total Credits				26

Semester III- (Credits: 15)

Course Code	Course Title	Course Type	L-T-P	Credits
CSB7170	Dissertation-I	Project	-	15
Total Credits				15

Semester IV- (Credits: 15)

Course Code	Course Title	Course Type	L-T-P	Credits
CSB7270	Dissertation-II	Project	-	15
Total Credits				15

Program Electives:

Course Code	Course Title	L-T-P	Credits
CSB6141	Deep Learning for Biological Data	3-1-0	4
CSB6142	Single-Cell & Spatial Transcriptomics	3-1-0	4
CSB6143	Explainable AI for Biomedical Applications	3-1-0	4
CSB6241	Computational drug design & Discovery	3-1-0	4
CSB6242	Vaccine & Antibody Engineering	3-1-0	4
CSB6243	Molecular Simulations	3-1-0	4