Program structure for
Integrated M.Sc. (Life Sciences) (2016-21)

Total credit	Sem.	Foundation courses			Core Compulsory courses (T: Theory, P: Practical)			General Elective
25	I	Basic Biology I (T) (3 credit) BIO 101	Basic Biology II (T) (3 credit) BIO 102	Basic Biology (P) (6 credit) BLAB 101	Mathematics for Biological sciences (T) (3 credit) BPS 101	Organic Chemistry (T) (3 credit), (P) (2 credit) BCS 101/BLAB 102	Concepts in Computing (T) (2 credit) ISB 101	Communication Skills (3 credit)
24	II	Biochemistry I (T) (3 credit) BCS 102	Microbiology (T) (3 credit) BIO 103	Biochemistry and Microbiology Techniques (P) (6 credit) BLAB 103	Biophysics (T) (3 credit) BPS 102	Physical Chemistry (T) (3 credit), (P) (2 credit) BCS 103/BLAB 104	Microscopy and imaging (T) (2 credit) BPS 103	Ethics in Life Sciences (2 credit)
25	III	Human Physiology (T) (3 credit) BIO 201	Immunology (T) (3 credit) BIO 202	Physiology and Immunology (P) (6 credit) BLAB 201	Basic programming Languages (T) (3 credit) ISB 201	Inorganic Chemistry (T) (3 credit), (P) (2 credit) BCS 104/ BLAB 105	Core Elective I (T) (2 credit)	General Electives (3 credit)
25	IV	Biochemistry II (T) (3 credit) BCS 201	Molecular Biology (T) (3 credit) BIO 203	Biochemistry and Molecular Biology (P) (6 credit) BLAB 202	Basics of Bioinformatics (T) (3 credit) ISB 202	Environmental Science (T) (3 credit) BIO 104	Project (4 credit)	
20	V	Animal Biotechnology (T) (3 credit) BIO 204	Cell Biology (T) (3 credit) BIO 205	Cell Biology and Bioinformatics (P) (6 credit) BLAB 203	Computational Structural Biology (T) (3 credit) ISB 301		Core Elective II (T) (2 credit)	
25	VI	Genetics (T) (3 credit) BIO 206	Nano-biotechnology (T) (3 credit) BCS 202	Toxicology and Genetics (P) (6 credit) BLAB 204	Toxicology (T) (3 credit) BIO 207		Project (7 credit)	
19	VII	Developmental Biology (T) (3 credit) BIO 301	Biochemistry III (T) (3 credit) BCS 301	Advanced Molecular Biology (P) (8 credit) BLAB 301	Omic Technologies (T) (3 credit) BIO 302		Core Elective III (T) (2 credit)	
25	VIII	Cancer Biology (T) (3 credit) BIO 303	Plant Biotechnology & Tissue Culture (T) (3 credit) BIO 304	Advanced Cell Biology (P) (8 credit) BLAB 302	Research Methodology (T) (3 credit) BPS 201		Project (8 credit)	
26	IX		Core Electives IV (12 credit) & Project (14 credit)					
26	X		Dissertation Work (26 credit)					

Elective I CE301	**Elective II** CE502	**Elective III** CE703	**Elective IV** CE904
Biophysics & instrumentation Intellectual Property Rights Computer aided drug design Biological database and data mining Electron Microscopy	Network analysis & systems biology Animal and Plant tissue culture Molecular immunology Flow Cytometry Disease and clinical diagnostics Chemoinformatics & DBMS	Metabolic engineering Pharmacogenomics (Emphasis on toxicogenomics) Innovation & product design qPCR technique Cytogenetics Molecular dynamics simulations Safety assessment of nanomaterials	***Specialization in:*** Microbiology Biochemistry Biotechnology Computational Biology