

Bachelor of Technology in Biotechnology

School of Biosciences and Technology

Programme Credit Structure		Credits	Programme Core Courses		40
University Core Courses		60	BABIT101	Biochemistry	3 0 2 4
Professional Core Courses		60	BABIT102	Microbiology	3 0 2 4
Programme Core		40	BABIT103	Cell and Molecular Biology	3 0 2 4
Concentration		20	BABIT201	Principles of Chemical Engineering	3 0 2 4
Open Elective Courses		40	BABIT202	Fundamentals of Bioinformatics	2 1 2 4
Total Graded Credit Requirement		160	BABIT203	Analytical Techniques in Biotechnology	3 0 2 4
University Core Courses		60	BABIT204	Industrial Biotechnology	3 1 0 4
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BAPHY100	Physics*		BABIT206	Bioprocess Engineering	3 0 2 4
BACHY100	Chemistry*		BABIT207	Genetic Engineering	3 0 2 4
BAMAT101	Multivariable Calculus and Differential Equations	3 0 2 4	Concentrations		
BAMAT200	Mathematics II*		Microbial Technology		
BAEEE101	Basic Engineering	3 0 2 4	20		
BACSE101	Problem Solving Using Python	0 0 4 2	BABIT301	Environmental Biotechnology	3 1 0 4
BACSE102	Problem Solving Using Java	0 0 4 2	BABIT302	Industrial Enzymology	3 1 0 4
BAENG101	Technical English Communication	3 0 2 4	BABIT303	Biochemical Engineering	3 1 0 4
BASTS101	Qualitative and Quantitative Skills Practice I	3 0 0 1	BABIT401	Downstream Processing	3 0 2 4
BASTS102	Qualitative and Quantitative Skills Practice II	3 0 0 1	BABIT402	Protein Engineering and Design	3 1 0 4
BAFLC100	Foreign Language	1 0 2 2	Applied Bioinformatics		
BAHSM100	Humanities, Social Science and Management	3 0 0 3	20		
BAHUM101	India Studies	1 0 0 1	BABIT304	Structural Bioinformatics	3 0 2 4
BACHY101	Environmental Sciences	2 0 0 2	BABIT305	Computational Biology	2 1 2 4
BAHUM100	Ethics and Values*		BABIT306	Systems Biology	3 1 0 4
BAMGT101	Entrepreneurship	3 0 0 3	BABIT403	Biological Data Analytics	3 1 0 4
BABIT191	Basic Multidisciplinary Project	0 0 4 2	BABIT404	Artificial Intelligence and Machine Learning in Biology	2 1 2 4
BABIT291	Innovative Design Project	0 0 4 2	Bio-Pharmaceuticals		
BABIT391	Research / Design Project	0 0 6 3	20		
BABIT491	Technical Answers for Real World Problems	1 0 4 3	BABIT307	Pharmaceutical Biotechnology	3 1 0 4
BABIT399	Internship I	0 0 2 1	BABIT308	Medical Diagnostics	3 1 0 4
BABIT499	Internship II / Capstone Project	0 0 12 6	BABIT309	Pharmacoinformatics and Pharmacovigilance	3 0 2 4
BAENG100	Effective English Communication (NCC)	0 0 4 2	BABIT405	Drug Discovery and Development	3 1 0 4
BAEXC100	Extracurricular Activities (NCCM)	0 0 4 2	BABIT406	Toxicology	3 1 0 4
BABIT100	Biology (NCC)	3 1 0 4	Plant and Animal Biotechnology		
BAMAT100	Foundations of Mathematics (NCC)	3 1 0 4	20		
*-Basket Details					
BAPHY102	Physics for Biologist	3 0 2 4	BABIT310	Plant Biotechnology	3 1 0 4
BACHY102	Organic Chemistry for Biotechnologists	3 0 2 4	BABIT311	Animal Biotechnology	3 1 0 4
BAMAT203	Linear Algebra and Dynamical Systems	3 1 0 4	BABIT312	Food Process Engineering	3 1 0 4
BAHUM103	Ethics and Values	2 0 0 2	BABIT407	Developmental Biology and Regenerative Medicine	3 1 0 4
			BABIT408	Genomics and Proteomics	3 1 0 4
			Open Elective Courses		40
			Engineering Sciences Humanities Social Sciences Liberal Arts Economics Finance Management		

Ancillary (20 credits) - Students can opt for "Ancillary" in other disciplines by earning 20 credits from the courses listed in the Ancillary options under Open Elective. Ancillary details will be mentioned only on the transcript.

Additional Concentration (20 credits) - Students can opt for "Additional Concentrations" in their own discipline by earning 20 credits from the courses listed in the Concentration options under Open Elective. Concentration details will be mentioned only on the transcript.

Minor (additional 20 credits) - Students can opt for a "Minor Degree" in other disciplines 20 credits in addition to the minimum credit requirement of the Undergraduate Degree from the courses listed in the Minor options

Honours (additional 20 credits) - Students can opt for an "Honours Degree" in the same discipline by earning 20 credits in addition to the minimum credit requirement of the Undergraduate Degree from the courses listed in the Honours options.

Second Major (additional 40 credits) - Students can opt for a "Second Major" in other disciplines by earning 40 credits in addition to the minimum credit requirement of the Undergraduate Degree from the courses listed in the Second Major options.