

# Bachelor of Technology in Computer Science and Engineering

## School of Computer Science and Engineering

Programme Credit Structure		Credits	BACSE105 Data Structures and Algorithms				3	0	2	4
University Core Courses			BACSE106 Operating Systems	3	0	2	4			
Professional Core Courses		60	BACSE201 Models of Computation	3	1	0	4			
Programme Core Concentration		60	BACSE202 Database Systems	3	0	2	4			
Open Elective Courses		40	BACSE203 Computer Networks	3	0	2	4			
Total Graded Credit Requirement		160	BACSE204 Software Engineering	3	0	2	4			
University Core Courses		60	BACSE205 Fundamentals of Artificial Intelligence and Machine Learning	3	0	2	4			
			BAMAT205 Discrete Mathematics and Linear Algebra	3	1	0	4			
<b>Concentration</b>			<b>Concentration</b>							
			<b>Systems Engineering</b>				20			
BAPHY100 Physics*		4	BACSE303 Deep Learning	3	0	2	4			
BACHY100 Chemistry*		4	BACSE319 Cryptography and Network Security	3	0	2	4			
BAMAT101 Multivariable Calculus and Differential Equations		3 0 2 4	BACSE324 Embedded Systems Architecture	3	0	2	4			
BAMAT200 Mathematics II*		4	BACSE325 Full Stack Development	2	0	4	4			
BAEEE101 Basic Engineering		3 0 2 4	BACSE326 Distributed System Design	3	0	2	4			
BACSE101 Problem Solving Using Python		0 0 4 2	<b>Open Elective Courses</b>				40			
BACSE102 Problem Solving Using Java		0 0 4 2	Engineering   Sciences   Humanities   Social Sciences   Liberal Arts   Economics   Finance   Management							
BAENG101 Technical English Communication		3 0 2 4								
BASTS101 Qualitative and Quantitative Skills Practice I		3 0 0 1	<b>Ancillary (20 credits)</b> - 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.							
BASTS102 Qualitative and Quantitative Skills Practice II		3 0 0 1								
BAFLC100 Foreign Language		1 0 2 2	<b>Additional Concentration (20 credits)</b> - 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.							
BAHSM100 Humanities, Social Science and Management		3 0 0 3								
BAHUM101 India Studies		1 0 0 1	<b>Minor (additional 20 credits)</b> - 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							
BACHY101 Environmental Sciences		2 0 0 2								
BAHUM100 Ethics and Values*		2	<b>Honours (additional 20 credits)</b> - 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.							
BAMGT101 Entrepreneurship		3 0 0 3								
BACSE191 Basic Multidisciplinary Project		0 0 4 2	<b>Second Major (additional 40 credits)</b> - 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.							
BACSE291 Innovative Design Project		0 0 4 2								
BACSE391 Research / Design Project		0 0 6 3								
BACSE491 Technical Answers for Real World Problems		1 0 4 3								
BACSE399 Internship I		0 0 2 1								
BACSE499 Internship II / Capstone Project		0 0 12 6								
BAENG100 Effective English Communication (NCC)		0 0 4 2								
BAEXC100 Extracurricular Activities (NCCM)		0 0 4 2								
<b>*-Basket Details</b>										
BAPHY105 Engineering Physics		3 0 2 4								
BACHY105 Applied Chemistry		3 0 2 4								
BAMAT207 Probability and Statistics		3 0 2 4								
BAHUM103 Ethics and Values		2 0 0 2								
<b>Programme Core Courses</b>		40								
BACSE103 Computation Structures		3 0 2 4								
BACSE104 Structured and Object-Oriented Programming		2 0 4 4								