

**Bachelor of Technology in Computer Science and Engineering**  
**School of Computer Science and Engineering**

Programme Credit Structure		Credits							
University Core Courses		<b>80</b>			CSE3003	Computer Networks	3	2	4
Programme Core Courses		<b>40</b>			ECE2002	Computer Architecture and Organization	4	0	4
Programme Elective / Specialization Elective		<b>20</b>			CSE1008	Theory of Computation	4	0	4
University Elective		<b>20</b>			<b>Specialization Electives</b>				<b>20</b>
Total Graded Credit Requirement		<b>160</b>			CSE1006	Foundations for Data Analytics	3	2	4
University Core		<b>80</b>			CSE1007	Introduction to Cryptography	3	2	4
<b>Course Code</b>	<b>Course Title</b>	<b>T</b>	<b>P</b>	<b>C</b>	CSE1021	Foundations of Blockchain Technology	3	2	4
MAT1001	Calculus for Engineers	3	2	4	CSE2009	Soft Computing	3	2	4
MAT1002	Applications of Differential and Difference Equations	4	0	4	CSE2011	Cyber Security and Digital Forensics	3	2	4
MATXXXX	Probability and Statistics	3	2	4	CSE2013	Information Theory and Coding	4	0	4
PHY1008	Modern Physics	3	2	4	CSE3005	Distributed Systems	3	2	4
CHY1009	Chemistry and Environmental Studies	3	2	4	CSE3012	Network Security	3	2	4
CSE1012	Problem Solving using Python	3	2	4	CSE4001	Cloud Computing	3	2	4
CSE2005	Object Oriented Programming using JAVA	3	2	4	CSE4003	Parallel Computing	3	2	4
CSE2001	Data Structures and Algorithms	3	2	4	CSE3008	Introduction to Machine Learning	3	2	4
ECE1002	Fundamentals of Electrical and Electronics Engineering	3	2	4	CSE4006	Deep Learning	3	2	4
ENG1001/ENG1002	English for Essential Communication/ English for Effective Communication	2	2	3	CSE4008	Social Network Analysis	3	2	4
ENG1002/ENG2001	English for Effective Communication /English for Professional Communication	2	2	3	CSE4009	Wireless and Mobile Computing	3	2	4
FRLXXXX	Foreign Language	2	0	2	CSE2026	Object Oriented Analysis and Design	3	2	4
MGT1001	Ethics and Values	0	2	2	CSE4004	Web Technologies	3	2	4
MGT1040	Entrepreneurship	3	2	4	ECE2014	Microprocessors and Microcontrollers	3	2	4
XXXX	Indian Studies	2	0	2	ECE4003	Embedded Programming	3	2	4
STSXXXX	Qualitative and Quantitative Skills Practice I	3	0	1	<b>University Electives</b>				<b>20</b>
STSXXXX	Qualitative and Quantitative Skills Practice II	3	0	1	Compulsory for PAT Registered Students				
BIC4002	Industrial Internship/ Senior Design Project	0	0	12	CSE2025	AWS Solution Architect			
CAP4001	Capstone	0	0	6	CSE1022	Introduction to Programming			
SIT1001	Summer Internship	0	0	2	STSXXX	Competitive Coding Course-I			
ECS2002	Engineering Clinics - System Design	0	4	2	STSXXX	Competitive Coding Course-II			
ECS3001	Engineering Clinics - Real Time System	0	4	2	STSXXX	Competitive Coding Course-III			
EXCXXXX	Extracurricular Activities			2	STSXXX	Competitive Coding Course-IV			
<b>Programme Core</b>		<b>40</b>			Engineering  Sciences   Humanities   Social Sciences   Liberal arts   Economics   Finance   Management				
ECE1003	Digital Logic Design	3	2	4	<b>Honours Degree (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.				
MAT1003	Discrete Mathematical Structures	4	0	4	<b>Minors Degree (20 credits)</b> - Students can opt for a "Minor Degree" in other disciplines 20 credits in addition to the mini-mum credit requirement of the Undergraduate Degree from the courses listed in the Minor options.				
CSE3004	Design and Analysis of Algorithms	3	2	4	<b>Double Major Degree (40 credits)</b> -Students can opt for a "Double 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.				
CSE2008	Operating Systems	3	2	4					
CSE1005	Software Engineering	3	2	4					
CSE3002	Artificial Intelligence	3	2	4					
CSE2007	Database Management Systems	3	2	4					