Bachelor of Technology in Computer Science and Engineering (Blockchain)
School of Computer Science and Engineering

Programme Credit Structure	Credits
University Core Courses	80
Programme Core Courses	40
Programme Elective / Specialization Elective	20
University Elective	20
Total Graded Credit Requirement	160

University Core **80**

Course Code	Course Title	T	P	C
MAT1001	Calculus for Engineers	3	2	4
MAT1002	Applications of Differential and Difference Equations	4	0	4
MATXXXX	Probability and Statistics	3	2	4
PHY1008	Modern Physics	3	2	4
CHY1009	Chemistry and Environmental Studies	3	2	4
CSE1012	Problem Solving using Python	3	2	4
CSE2005	Object Oriented Programming using JAVA	3	2	4
CSE2001	Data Structures and Algorithms	3	2	4
ECE1002	Fundamentals of Electrical and Electronics Engineering	3	2	4
ENG1001/ ENG1002	English for Essential Communication/ English for Effective Communication	2	2	3
ENG1002/ ENG2001	English for Effective Communication /English for Professional Communication	2	2	3
FRLXXXX	Foreign Language	2	0	2
MGT1001	Ethics and Values	0	2	2
MGT1040	Entrepreneurship	3	2	4
XXXX	Indian Studies	2	0	2
STSXXXX	Qualitative and Quantitative Skills Practice I	3	0	1
STSXXXX	Qualitative and Quantitative Skills Practice II	3	0	1
BIC4002	Industrial Internship/ Senior Design Project	0	0	12
CAP4001	Capstone	0	0	6
SIT1001	Summer Internship	0	0	2
ECS2002	Engineering Clinics - System Design	0	4	2
ECS3001	Engineering Clinics - Real Time System	0	4	2
EXCXXXX	Extracurricular Activities			2

Programme Core **40**

ECE1003	Digital Logic Design	3	2	4
MAT1003	Discrete Mathematical Structures	4	0	4
CSE3004	Design and Analysis of Algorithms	3	2	4
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
CSE3003	Computer Networks	3	2	4
ECE2002	Computer Architecture and Organization	4	0	4
CSE1008	Theory of Computation	4	0	4

Specialization Electives **20**

CSE1007	Introduction to Cryptography **[Compulsory]**	3	2	4
CSE1021	Foundations of Blockchain Technology **[Compulsory]**	3	2	4
CSE2024	Blockchain Architecture Design	3	2	4
CSE3036	Cryptocurrency Technologies and Bitcoin	3	2	4
CSE3035	Blockchain and Distributed Ledger Technology	3	2	4
CSE3005	Distributed Systems	3	2	4
CSE3037	Public Key Infrastructure & Trust Management	3	2	4
CSE3013	Secure Group Communications	3	2	4
CSE3038	Smart Contracts	3	2	4

University Electives **20**

Compulsory for PAT Registered Students

CSE2025	AWS Solution Architect
CSE1022	Introduction to Programming
STSXXX	Competitive Coding Course-I
STSXXX	Competitive Coding Course-II
STSXXX	Competitive Coding Course-III
STSXXX	Competitive Coding Course-IV

Engineering |Sciences | Humanities | Social Sciences | Liberal arts | Economics | Finance | Management

Honours Degree (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.

Minors Degree (20 credits) - 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.

Double Major Degree (40 credits) -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.