

Bachelor of Technology in Computer Science and Engineering (Software Engineering)

School of Computer Science and Engineering

Programme Credit Structure		Credits								
University Core Courses		80			CSE2008	Operating Systems	3	2	4	
Programme Core Courses		40			CSE1005	Software Engineering	3	2	4	
Programme Elective / Specialization Elective		20			CSE3002	Artificial Intelligence	3	2	4	
University Elective		20			CSE2007	Database Management Systems	3	2	4	
Total Graded Credit Requirement		160			CSE3003	Computer Networks	3	2	4	
					ECE2002	Computer Architecture and Organization	4	0	4	
					CSE1008	Theory of Computation	4	0	4	
University Core		80			Specialization Electives				20	
Course Code	Course Title	T	P	C	Course Code	Course Title	T	P	C	
MAT1001	Calculus for Engineers	3	2	4	CSE2003	Requirements Engineering Management [Compulsory]	3	2	4	
MAT1002	Applications of Differential and Difference Equations	4	0	4	CSE3001	Agile Development Process	3	2	4	
MATXXXX	Probability and Statistics	3	2	4	CSE2004	Software Design and Architecture	3	2	4	
PHY1008	Modern Physics	3	2	4	CSE4001	Cloud Computing	3	2	4	
CHY1009	Chemistry and Environmental Studies	3	2	4	CSE3019	Software Quality and Reliability	3	2	4	
CSE1012	Problem Solving using Python	3	2	4	CSE2026	Object Oriented Analysis and Design	3	2	4	
CSE2005	Object Oriented Programming using JAVA	3	2	4	CSE4012	UI/UX User Experience Design	3	2	4	
CSE2001	Data Structures and Algorithms	3	2	4	CSE4049	Software Project Management	3	2	4	
ECE1002	Fundamentals of Electrical and Electronics Engineering	3	2	4	CSE3033	Software Verification and Validation	3	2	4	
ENG1001/ENG1002	English for Essential Communication/ English for Effective Communication	2	2	3	CSE2010	Secure Coding	3	2	4	
ENG1002/ENG2001	English for Effective Communication /English for Professional Communication	2	2	3	University Electives					
FRLXXXX	Foreign Language	2	0	2	20					
MGT1001	Ethics and Values	0	2	2	Compulsory for PAT Registered Students					
MGT1040	Entrepreneurship	3	2	4	CSE2025	AWS Solution Architect				
XXXX	Indian Studies	2	0	2	CSE1022	Introduction to Programming				
STSXXXX	Qualitative and Quantitative Skills Practice I	3	0	1	STSXXX	Competitive Coding Course-I				
STSXXXX	Qualitative and Quantitative Skills Practice II	3	0	1	STSXXX	Competitive Coding Course-II				
BIC4002	Industrial Internship/ Senior Design Project	0	0	12	STSXXX	Competitive Coding Course-III				
CAP4001	Capstone	0	0	6	STSXXX	Competitive Coding Course-IV				
SIT1001	Summer Internship	0	0	2	Engineering Sciences Humanities Social Sciences Liberal arts Economics Finance Management					
ECS2002	Engineering Clinics - System Design	0	4	2	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.					
ECS3001	Engineering Clinics - Real Time System	0	4	2	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.					
EXCXXXX	Extracurricular Activities				2	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.				
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						