

Curriculum

Programme Name:

Curriculum applicable to (for admitted year xxxx-xx)

Curriculum Version:

Approved by & Date

B. Tech.CSE(Cyber Security)

AY 2025-26

1.0

1st Academic Council

University Core Min. Credit Requirements ----->**88**

Course Code	Category	Course Title	L	T	P	C	Pre/Co-Requisite	Anti-requisite	Course Discipline
	Projects and Internships	All are compulsory courses except for choices				18			
BIP402		Industrial Internship/ Senior Design Project	0	0	20	10	None	None	Engineering
CAP401		Capstone	0	0	8	4	None	None	Engineering
SIT301		Summer Internship / Global Industry Certification	0	0	4	2	None	None	Engineering
ECS201		Engineering Clinics - Multi Disciplinary Project	0	0	4	2	None	None	Engineering
	Engineering Foundation	All are compulsory				12			
UCS101		Introduction to Programming	3	0	0	3	None	None	Engineering
UCS101P		Introduction to Programming Lab	0	0	2	1			
UCS102		Problem Solving using Python	3	0	0	3	None	None	Engineering
UCS102P		Problem Solving using Python Lab	0	0	2	1			
UEC101		Basics of Electrical and Electronics Engineering	3	0	0	3	None	None	Engineering
UEC101P		Basics of Electrical and Electronics Engineering Lab	0	0	2	1			
	Discipline Linked Engineering	Any 8 Credits based on Discipline				8			
UCS201		Data Structures and Algorithms	3	0	0	3	None	None	Engineering
UCS201P		Data Structures and Algorithms Lab	0	0	2	1			
UCS202		Object Oriented Programming using JAVA	3	0	0	3	None	None	Engineering
UCS202P		Object Oriented Programming using JAVA Lab	0	0	2	1			
UME101		Workshop Practice	1	0	4	3	None	None	Engineering
UME102		Engineering Graphics Design	1	0	4	3	None	None	Engineering
UME103		Elements of Mechanical Engineering	2	0	0	2	None	None	Engineering
UCE101		Elements of Civil Engineering	2	0	0	2	None	None	Engineering
	Humanities Basket	All are compulsory				12			
USS101		Industry Specific Communication	3	0	0	3	None	None	Humanities
USS102		Quantitative Aptitude & Logical Reasoning	3	0	0	3	None	None	Humanities
USS201		Advanced Quantitative & Analytical Reasoning	3	0	0	3	USS102	None	Humanities
USS202		Industry oriented Programming skills	3	0	0	3	USS201	None	Humanities
		Any two English courses depending on SKEPT result				6			
UHM101		English for Essential Communication	2	0	0	2	EPT (Not Cleared)	None	Humanities
UHM101P		English for Essential Communication Lab	0	0	2	1			
UHM102		English for Effective Communication	2	0	0	2	EPT (Cleared) /UHM1	None	Humanities
UHM102P		English for Effective Communication Lab	0	0	2	1			
UHM103		Technical English Communication	2	0	0	2	UHM102	None	Humanities
UHM103P		Technical English Communication Lab	0	0	2	1			
		Any one Foreign Language course				2			
UFR101		Basic French	2	0	0	2	None	None	Humanities
UFR102		Basic Spanish	2	0	0	2	None	None	Humanities
UFR103		Basic German	2	0	0	2	None	None	Humanities
UFR104		Basic Japanese	2	0	0	2	None	None	Humanities
	Science Basket	All are Compulsory				20			
USC101		Differential Calculus	4	0	0	4	None	None	Science
USC102		Linear Algebra and Differential Equations	4	0	0	4	USC101	None	Science
USC201		Applied Statistics	3	0	0	3	None	None	Science
USC201P		Applied Statistics Lab	0	0	2	1			
USC103		Modern Physics	3	0	0	3	None	None	Science
USC103P		Modern Physics Lab	0	0	2	1			
USC105		Engineering Chemistry	3	0	0	3	None	None	Science
USC105P		Engineering Chemistry Lab	0	0	2	1			
	Non Graded Credit Courses	All are Compulsory				10			
UVC101	Online	Human Values and Ethics	2	0	0	2	None	None	NGCR
UVC202	Online	Indian Constitution	2	0	0	2	None	None	NGCR
UVC103		Environmental Studies	2	0	0	2	None	None	NGCR
UVC203	Online	Indian Knowledge System	1	0	0	1	None	None	NGCR
EMC101		Entrepreneurship Setup and Launch	0	0	4	2	None	None	Entrepreneurship & Management
UVC201	Student Club Activities	Co/Extra Curricular	0	0	2	1	None	None	NGCR

Programme Core Min. Credit Requirements ----->**43**

Course Code	Category	Course Title	L	T	P	C	Pre/Co-Requisite	Anti-requisite	Course Discipline
CSE201		Discrete Mathematical Structures	4	0	0	4	None	None	Science
CSE202		Digital Logic Design	3	0	0	3	UEC101	None	Engineering
CSE202P		Digital Logic Design Lab	0	0	2	1			
CSE203		Software Engineering	3	0	0	3	None	None	Engineering
CSE204		Database Management Systems	3	0	0	3	CSE201	None	Engineering
CSE204P		Database Management Systems Lab	0	0	2	1			
CSE301		Computer Architecture and Organization	4	0	0	4	CSE202	None	Engineering
CSE302		Operating Systems	3	0	0	3	None	None	Engineering
CSE302P		Operating Systems Lab	0	0	2	1			
CSE303		Artificial Intelligence	3	0	0	3	None	None	Engineering
CSE303P		Artificial Intelligence Lab	0	0	2	1			
CSE304		Design and Analysis of Algorithms	3	0	0	3	UCS201	None	Engineering
CSE304P		Design and Analysis of Algorithms Lab	0	0	2	1			
CSE305		Computer Networks	3	0	0	3	None	None	Engineering
CSE305P		Computer Networks Lab	0	0	2	1			
CSE306		Theory of Computation	4	0	0	4	None	None	Engineering
CSE401		Web Technologies	3	0	0	3	UCS202	None	Engineering
CSE401P		Web Technologies Lab	0	0	2	1			

Specialization Electives Min. Credit Requirements ----->**24**

Course Code	Category	Course Title	L	T	P	C	Pre/Co-Requisite	Anti-requisite	Course Discipline
		Any course to fulfill the basket requirements							
CSE206		Introduction to Cryptography	3	0	0	3	None	None	Engineering

CSE206P		Introduction to Cryptography Lab	0	0	2	1			
CSE209		Foundations of Blockchain Technology	3	0	0	3	None	None	Engineering
CSE209P		Foundations of Blockchain Technology Lab	0	0	2	1			
CSE212		Cyber Security and Digital Forensics	3	0	0	3	CSE206	None	Engineering
CSE212P		Cyber Security and Digital Forensics Lab	0	0	2	1			
CSE318		Intrusion Detection and Prevention System	3	0	0	3	CSE206	None	Engineering
CSE318P		Intrusion Detection and Prevention System Lab	0	0	2	1			
CSE321		Public Key Infrastructure & Trust Management	3	0	0	3	CSE206	None	Engineering
CSE321P		Public Key Infrastructure & Trust Management Lab	0	0	2	1			
CSE322		Malware Analysis	3	0	0	3	CSE206	None	Engineering
CSE322P		Malware Analysis Lab	0	0	2	1			
CSE410		Web Application Security	3	0	0	3	CSE401	None	Engineering
CSE410P		Web Application Security Lab	0	0	2	1			
CSE411		Vulnerability Assessment and Penetration Testing	3	0	0	3	CSE206	None	Engineering
CSE411P		Vulnerability Assessment and Penetration Testing Lab	0	0	2	1			
CSE413		Cryptocurrency Technologies and Bitcoin	3	0	0	3	CSE209	None	Engineering
CSE413P		Cryptocurrency Technologies and Bitcoin Lab	0	0	2	1			
CSE419		Network Security	3	0	0	3	CSE305	None	Engineering
CSE419P		Network Security Lab	0	0	2	1			
CSE420		Artificial Intelligence for Cyber Security	3	0	0	3	CSE303	None	Engineering
Open Electives Min. Credit Requirements ----->						9			
Course Code	Category	Course Title	T	P	C	Pre/Co-Requisite	Anti-requisite	Course Discipline	
Any Course after fulfilling Programme Core & Unified Core requirements without duplicity can be taken as Open Elective									

Credit Distribution

CSE(Cyber Security)	Credits
University Core Courses	88
Engineering Foundation	20
Science Basket	20
Projects and Internships	18
Humanities	20
Value Added Courses	10
Programme Core Courses	43
Programme/ Specialization Elective Courses	24
Open Elective Courses	9
Total Credits	164