UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

M.TECH. CYBER SECURITY

2021-2023

GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA, UP, INDIA

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS521	Advanced Data Base Management System	3	0	0	3	CC1
2	CS523	Design and Architecture for Software Systems	3	0	0	3	CC2 / FC
3	CS525	Advanced Data Structure and Algorithm	3	1	0	4	CC3
4	CS527	Research Techniques in ICT	3	0	0	3	CC4
5	CS529	Java Programming	3	0	0	3	CC5
6	ES415	Energy and Environment	3	0	0	3	OE1 /AECC
7	EN531	Language Culture and Society	3	0	0	3	OE2 /AECC
8	CS581	Advanced Data Base Management System Lab	0	0	3	2	CC-L1
9	CS583	Java Programming Lab	0	0	3	2	CC-L2 / SEC
10	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**21**	**1**	**6**	**26**	

SEMESTER II

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS522	Python Programming	3	0	0	3	CC6
2	CC522	Fundamental of Cyber Security	3	0	0	3	CC7
3	CC524	Advanced Principles of Secure Coding	3	0	0	3	CC8
4	CC526	Digital Forensics Techniques	3	0	0	3	CC9
5		Elective-1	3	0	0	3	E1/ DSE
6		Elective-2	3	0	0	3	E2 / DSE
7		Generic Elective	3	1	0	4	GE1
8	CS582	Python Programming Lab	0	0	3	2	CC-L3 / SEC
9	CC582	Cyber Security Lab	0	0	3	2	CC-L4
10	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**21**	**1**	**6**	**26**	

Summer Project in Industry will be done individually after Fourth Year of Integrated B.Tech. - M.Tech. CSE and Second Year of M.Tech. during the summer break and it will be of minimum 4 weeks. It will be evaluated as per University Examination Rules in III semester of M.Tech. and IX semester for Integrated B.Tech. - M.Tech. CSE .

SEMESTER III

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CC621	Digital Forensics and Incident Response	3	0	0	3	CC10
2	CC623	Ethical Hacking and Penetration Testing	3	0	0	3	CC11
3		Elective-3	3	0	0	3	E3 / DSE
4		Elective-4	3	0	0	3	E4 / DSE
5	CC681	Digital Forensics Lab	0	0	3	2	CC-L5
6	CC683	Summer Project	0	0	8	4	SP / E
7	CC691	Dissertation Part - I	0	0	16	8	DP1 / E
8	GP	General Proficiency	Non Credit				
		Total Hours and Credits	12	0	27	26	

SEMESTER IV

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CC692	Dissertation Part - II	0	0	52	26	DP2 / E
2	GP	General Proficiency	Non Credit				
		Total Hours and Credits	0	0	52	26	

GRAND TOTAL OF CREDITS   =   104

Summer Project will be done individually and It will be evaluated as per University Examination Rules.

Dissertation will be done individually and It will be evaluated as per University Examination Rules.

USICT will provide a mentor/supervisor for summer project, and dissertation.

ELECTIVES FROM DCSE

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CC528	Operating System Security	3	0	0	3	E1
2	CC530	Image and Video Processing Techniques	3	0	0	3	E1
3	CC532	Access Control and Identity Management Systems	3	0	0	3	E1
4	CC534	Physical Security of IT Infrastructure	3	0	0	3	E1
5	CC536	Applied Cryptography	3	0	0	3	E2
6	CC538	Parallel and Distributed Computing	3	0	0	3	E2
7	CC540	Cloud Architectures and Security	3	0	0	3	E2
8	CC542	Advanced Security with Web Technology	3	0	0	3	E2
9	CC635	Data Security and Privacy	3	0	0	3	E3
10	CC637	Android Security Design and Internals	3	0	0	3	E3
11	CC639	Biometric Systems and Security	3	0	0	3	E3
12	CC631	Blockchain Technology	3	0	0	3	E3
13	CC633	Information Warfare	3	0	0	3	E4
14	CC635	Risk Management and Audit	3	0	0	3	E4
15	CC637	Mobile and Wireless Network Security	3	0	0	3	E4
16	CC639	Machine Learning Techniques	3	0	0	3	E4

OPEN AND GENERIC ELECTIVES FROM OTHER SCHOOLS

S.No.	Course Code	Course Name	L	T	P	Credits	Types
17	ES415	Energy and Environment	3	0	0	3	OE1
18	EN531	Language, Culture and Society	3	0	0	3	OE2
19	MA402	Modeling and Simulation	3	1	0	4	GE1
20	MA416	Probability and Stochastic Process	3	1	0	4	GE1

CC	**C**omputer Science and **C**yber Security for Course Code	**FC**	Foundation Course
CS	Computer Science for Course Code	**DSC**	Discipline Specific Course
CC	Core Course from USICT for Type of Course	**SEC**	Skill Enhancement Course
CC-L	Core Course Lab from USICT for Type of Course	**E**	Elective
GE	General Elective from related discipline of other Deptt./School	**DP1**	Dissertation Part 1
AECC	Ability Enhancement Compulsary Course	**DP2**	Dissertation Part 2
OE	Open Elective from other discipline of other Deptt./School	**SP**	Summer Project