



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

NH-12 (Old NH-34), Simhat, Haringhata, Nadia -741249

Department of Information Technology (In-house)

B.Sc. in Information Technology (Cyber Security)

(Effective from academic session 2019-20)

Curriculum Structure

Semester I							
Sl. No.	CBCS Category ***	Course Code	Course Name	L	T	P	Credits
Theory							
1	C-1	BITCS101	Programming for Problem Solving	3	0	0	3
2	SEC-1	BITCS102	Electrical & Electronics Engineering	3	0	0	3
3	AECC-1	BITCS103	Soft Skills	3	0	0	3
4	GE-1	BITCS104	Mathematics for Computer Science	3	1	0	4
5	DSE-1	BITCS105	Introduction to AI & Machine Learning	3	1	0	4
6	C-2	BITCS106	Introduction to Information Security	3	1	0	4
Practical							
1		BITCS191	Programming for Problem Solving Lab	0	0	4	2
2		BITCS192	Electrical & Electronics Engineering Lab	0	0	4	2
3		BITCS193	Soft Skills Lab	0	0	2	1
Total Credit							26

Semester II							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory							
1	C-3	BITCS201	Data Structure and Algorithm with Python	3	0	0	3
2	C-4	BITCS202	Data Privacy & Security	3	0	0	3
3	C-5	BITCS203	Introduction to Ethical Hacking	3	1	0	4
4	GE-2	BITCS204	Discrete Mathematics	3	1	0	4
5	AECC-2	BITCS205	Environmental Science	1	0	0	1
Practical							
1		BITCS291	Data Structure and Algorithm with Python Lab	0	0	4	2
2		BITCS292	Data Privacy & Security Lab	0	0	4	2
Sessional							
1		BITCS281	Project 1	0	0	2	1
Total Credit							20



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Semester III							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory							
1	C-6	BITCS301	Computer Networks	3	0	0	3
2	GE-3	BITCS302	Design and Analysis of Algorithms	3	0	0	3
3	C-7	BITCS303	DBMS and SQL injection Attack	3	0	0	3
4	C-8	BITCS304	Access control & OS Security	3	1	0	4
5	C-9	BITCS305	Steganography & Watermarking	3	1	0	4
Practical							
1		BITCS391	Computer Networks Lab	0	0	4	2
2		BITCS392	Design and Analysis of Algorithms Lab	0	0	4	2
3		BITCS393	DBMS and SQL injection Attack Lab	0	0	4	2
Total Credit							23

Semester IV							
Sl. No.		Course Code	Course Name	L	T	P	Credits
Theory							
1	C-10	BITCS401	Secure Software Design & Enterprise Computing	3	0	0	3
2	C-11	BITCS402	Incident Analysis and Threat Hunting	3	0	0	3
3	C-12	BITCS403	Cyber Security Vulnerabilities & Cyber Security Safeguards	3	1	0	4
4	C-13	BITCS404	Network Security	3	1	0	4
5	C-14	BITCS405	Intrusion Detection and Prevention	3	1	0	4
Practical							
1		BITCS491	Secure Software Design & Enterprise Computing Lab	0	0	4	2
2		BITCS492	Incident Analysis and Threat Hunting Lab	0	0	4	2
Sessional							
1	SEC-1	BITCS481	Project II	0	0	4	2
Total Credit							24



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Semester V							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory							
1	DSE-1	BITCS501	Digital Forensics	3	0	0	3
2	DSE-2	BITCS502	Elective 1	3	0	0	3
			A. Visual Cryptography				
			B. Threats in Mobile Application				
			C. Information and Coding Theory				
3	C-15	BITCS503	Cyber Law and Cyber Crime Investigation	3	1	0	4
4	C-16	BITCS504	Web Application Security	3	1	0	4
Practical							
1		BITCS591	Digital Forensics Lab	0	0	4	2
Sessional							
1	SEC - 2	BITCS581	Industrial Training and Internship	0	0	2	1
2		BITCS582	Major Project I	0	0	4	2
Total Credit							19

Semester VI							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory							
1	DSE-3	BITCS601	Elective 2	3	0	0	3
			A. Security Assessment and Risk Analysis				
			B. Malware Detection				
			C. ML for Security				
			D. Image Processing and Security				
2	C-17	BITCS602	Biometric Security	3	1	0	4
3	C-18	BITCS603	Blockchain and Crypto currency	3	1	0	4
Sessional							
1		BITCS681	Grad Viva	0	0	2	1
2	DSE-4	BITCS682	Major Project II	0	0	8	4
Total Credit							16



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Semester	Credit
I	26
II	20
III	23
IV	24
V	19
VI	16
TOTAL	128

CBCS Category	CODE
CORE COURSE	C
Ability Enhancement Compulsory Course	AECC
Skill Enhancement Course	SEC
Elective: Discipline Specific	DSE
Elective: Generic	GE