

Department of Information Technology
B.Sc. in Information Technology (Cyber Security)

Semester I							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory + Practical							
1	CC-1	BITCSC101 BITCSC191	Programming Fundamentals	4	0	4	6
2	CC-2	BITCSC102	Discrete Structures	5	1	0	6
3	AECC-1	BITCSA101	Soft Skill	2	0	0	2
4	GE-1	BITCSG101 BITCSG102 BITCSG103 BITCSG104	1. MOOCS Basket 1 2. MOOCS Basket 2 3. MOOCS Basket 3 4. MOOCS Basket 4	4 / 5	0 / 1	4 / 0	6
Total Credit							20

Semester II							
Sl. No.		Course Code	Course Name	L	T	P	Credits
Theory + Practical							
1	CC-3	BITCSC201 BITCSC291	Data Structure and Algorithm with Python	4	0	4	6
2	CC-4	BITCSC202 BITCSC292	Operating System	4	0	4	6
3	AECC-2	BITCSA201	Environmental Science	2	0	0	2
4	GE-2	BITCSG201 BITCSG202 BITCSG203 BITCSG204	1. MOOCS Basket 1 2. MOOCS Basket 2 3. MOOCS Basket 3 4. MOOCS Basket 4	4 / 5	0 / 1	4 / 0	6
Sessional							
5	SEC-1	BITCSS281	Minor Project and Entrepreneurship I	0	0	4	2
Total Credit							22

Semester III							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory + Practical							
1	CC-5	BITCSC301 BITCSC391	DBMS and SQL injection Attack	4	0	4	6
2	CC-6	BITCSC302 BITCSC392	Information Security	4	0	4	6
3	CC-7	BITCSC303	Ethical Hacking	5	1	0	6
4	GE-3	BITCSG301 BITCSG302 BITCSG303 BITCSG304	1. MOOCS Basket 1 2. MOOCS Basket 2 3. MOOCS Basket 3 4. MOOCS Basket 4	4 / 5	0 / 1	4 / 0	6
5	SEC-2	BITCSS391	Web Development	0	0	4	2
Total Credit							26

Department of Information Technology
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Semester IV							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory + Practical							
1	CC-8	BITCSC401 BITCSC491	Computer Networks	4	0	4	6
2	CC-9	BITCSC402 BITCSC492	Software Engineering	4	0	4	6
3	CC-10	BITCSC403	Cyber Security: Vulnerabilities & Safeguards	5	1	0	6
4	GE-4	BITCSG401	1. MOOCS Basket 1 2. MOOCS Basket 2 3. MOOCS Basket 3 4. MOOCS Basket 4	4 / 5	0 / 1	4 / 0	6
Sessional							
6	SEC-3	BITCSS481	Minor Project and Entrepreneurship II	0	0	4	2
Total Credit							26

Semester V							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory + Practical							
1	CC-11	BITCSC501	Information and Coding Theory	5	1	0	6
2	CC-12	BITCSC502	Cyber Law and IPR	5	1	0	6
3	DSE-1	BITCSD501	Elective-I	4	0	4	6
			A. Steganography	/	/	/	
			B. Threats in Mobile Application	5	1	0	
			C. Internet Technology				
			D. Digital Forensics				
4	DSE-2	BITCSD502	Elective-II	4	0	4	6
			A. Security Assessment and Risk Analysis	/	/	/	
			B. IoT and Security	5	1	0	
			C. ML for Security				
			D. Web Application Security				
Sessional							
5	SEC-4	BITCSS501	Industrial Training and Internship	0	0	0	2
Total Credit							26

Semester VI							
Sl. No.	CBCS Category	Course Code	Course Name	L	T	P	Credits
Theory							
1	CC-13	BITCSC601 BITCSC691	Cloud Computing	4	0	4	6
2	CC-14	BITCSC602	Biometric Security	5	1	0	6
3	DSE-4	BITCSD601	Elective-III [MOOCS]				

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			A. Blockchain and Crypto currency	4	0	4	6
			B. Mobile Ad-hoc Network Security	5	1	0	
			C. Secure Software Design & Enterprise Computing				
			D. Big Data Analytics				
Sessional							
4	SEC-5	BITCSS681	Grand Viva	-	-	-	1
5	SEC-6	BITCSS682	Seminar	0	0	4	2
6	DSE-5	BITCSD681	Major Project and Entrepreneurship	0	0	8	4
Total Credit							25

Semester	Credit
I	20
II	22
III	26
IV	26
V	26
VI	25
TOTAL	145

GE Basket 1		GE Basket 2		GE Basket 3		GE Basket 4	
Mathematics		Humanities and Social Sciences		General Science		Emerging Technologies, Innovation & Entrepreneurship	
1	Mathematics for Computing	1	Creative Writing	1	Climate Change and Health	1	Digital Marketing
2	Probability & Statistics	2	Business English	2	Environmental Law and Policy	2	Entrepreneurship Theory and Practice
3	Bayesian Statistics	3	Leadership	3	Environmental Informatics	3	Project Management
4	Operations Research	4	Professional Communication	4	Health Informatics	4	E-Commerce System Development
5	Data Analytics	5	E-Learning	5	Intelligence of Biological Systems	5	Effective Problem-Solving and Decision-Making

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6	Applied Cryptography	6	Model Thinking	6	Simulation and Modelling Natural Processes	6	Business Analytics
7	Inferential Statistics	7	Digital Transformation and Industry 4.0	7	Bioinformatics	7	Design Thinking for Innovation