



JOY UNIVERSITY
semper paratus

School of Computational Intelligence

Department of Computing & Information Systems

B.Tech CSE (Cyber Security) – I Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1111	Fundamentals of Computing	3	1	0	4	4
2.	BTCY1112	Mathematics I	3	1	0	4	4
3.	BTCY1113	Physics	3	1	0	4	4
4.	AEEN1111	Effective Communication	2	0	2	4	3
5.	BTCY2111	Performing Arts	0	0	4	4	2
		TOTAL	11	3	6	20	17

B.Tech CSE (Cyber Security) – II Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1121	Mathematics II	3	1	0	4	4
2.	AEEV1121	Environmental Science	2	0	0	2	2
3.	BTCY1122	Introduction to Artificial Intelligence	3	0	0	3	3
4.	BTCY1123	Fundamentals of Programming	3	0	2	5	4
5.	BTCY1124	Personality Development and Soft skills	1	0	2	3	2
6.	BTCY2121	Engineering Physics Laboratory	0	0	4	4	2
7.	BTCY2122	Artificial Intelligence Laboratory	0	0	2	2	1
8.	BTCY2123	Practical Approach of Engineering Realization	0	0	4	4	2
		TOTAL	12	1	14	27	20

B.Tech CSE (Cyber Security) – III Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	AEPH1213	Professional Ethics	2	0	0	2	2
2.	BTCY1211	Probability, Statistics and Stochastic Processes	3	1	0	4	4
3.	BTCY1212	Signals and Systems	3	1	0	4	4
4.	BTCY1213	Foundations of Quantum Information Processing	3	0	0	3	3
5.	BTCY1214	Data Structure and Algorithm	3	0	2	5	4
6.	BTCY1215	Maths for Computing	3	1	0	4	4
7.	BTCY1216	Communication Skills II	2	0	0	2	2
		TOTAL	19	3	2	24	23

B.Tech CSE (Cyber Security) – IV Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1221	Pattern Recognition and Machine Learning	3	0	2	5	4
2.	BTCY1222	Principles of Computer Systems I (Compilers and CA)	3	0	2	5	4
3.	BTCY1223	Data Engineering	3	1	0	4	4
4.	BTCY2221	Human-Machine Interaction	0	0	4	4	2
5.	BTCY1224	Digital Design	2	0	2	4	3
6.	BTCY1225	Humanities I	3	0	0	3	3
		TOTAL	14	1	10	25	20

B.Tech CSE (Cyber Security) – V Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1311	Computer Architecture	3	0	0	3	3
2.	BTCY1312	Information Theory for Cyber Security	3	0	2	5	4
3.	BTCY1313	Design and Analysis of Algorithms	3	1	0	4	4
4.	BTCY1314	Principles of Computer Systems II/ Programming Languages	3	0	0	3	3
5.	PECY131#	PSE I	3	0	0	3	3
6.	GE	Generic Elective I	3	0	0	3	3
7.	BTCY1315	Humanities II	3	0	0	3	3
TOTAL			21	1	2	24	23

B.Tech CSE (Cyber Security) – VI Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1321	Data Visualization	3	0	2	5	4
2.	BTCY1322	Operating Systems	3	0	2	5	4
3.	BTCY1323	Data Encryption	3	0	2	5	4
4.	BTCY2321	Digital Systems Lab	0	0	2	2	1
5.	BTCY1324	Ethics, Policy, Law and Regulations in AI	3	0	0	3	3
6.	GE	Generic Elective II	3	0	0	3	3
7.	PECY132#	PSE II	3	0	0	3	3
TOTAL			18	0	8	26	22

B.Tech CSE (Cyber Security) – VII Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1411	Steganography and Digital Watermarking	3	0	0	3	3
2.	BTCY1412	Security Assessment and Risk Analysis	3	0	0	3	3
3.	PECY141#	PSE III	3	0	0	3	3
4.	BTCY1413	Humanities III	3	0	0	3	3
5.	BTCY3411	Project I	#	#	#	#	4
TOTAL			12	0	0	12	16

B.Tech CSE (Cyber Security) – VIII Semester

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTCY1421	Database Security and Access Control	3	0	2	5	4
2.	PECY142#	PSE IV	3	0	0	3	3
3.	BTCY1422	Humanities IV	3	0	0	3	3
4.	BTCY3421	Project II	#	#	#	#	8
TOTAL			9	0	1	11	18

List of Programme Specific Electives

Sl. No.	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	PECY1311	Distributed Databases Concepts	3	0	0	3	3
2.	PECY1312	Information Retrieval	3	0	0	3	3
3.	PECY1321	Digital Image Processing,	3	0	0	3	3
4.	PECY1322	Graph Theory and Algorithms	3	0	0	3	3
5.	PECY1411	Computational Complexity	3	0	0	3	3
6.	PECY1412	Quantum Computing	3	0	0	3	3
7.	PECY1421	Digital Signal Processing	3	0	0	3	3
8.	PECY1422	Optimization	3	0	0	3	3

Credit Summary

Semesters	Credits
Semester- I	17
Semester- II	20
Semester- III	23
Semester- IV	20
Semester- V	23
Semester- VI	22
Semester- VII	16
Semester VIII	18
Total	159