

Name of Faculty	:	Faculty of Engineering & Technology
Name of Program	:	Bachelor of Technology (B. Tech)
Course Code	:	2BCS01
Course Title	:	Introduction to Cyber Security
Type of Course	:	Professional Core
Year of Introduction	:	2023-24

Prerequisite	:	Logic and zeal to learn
Course Objective	:	To understand the objective and types of Cyber Security. To get knowledge of how to do System Firewall Settings.
Course Outcomes	:	At the end of this course, students will be able to:
	CO1	To Learn about Cybersecurity and its importance
	CO2	To have knowledge of how to prevent cyber attacks
	CO3	Understand how to be prevent from Cyber Attacks
	CO4	To be aware about different cyber Laws - IT Act 2008

Teaching and Examination Scheme

Teaching Scheme (Contact Hours)			Credits	Examination Marks				
L	T	P		C	Theory Marks		Practical Marks	
SEE	CIA	SEE	CIA					
3	0	2	4	70	30	30	20	150

Legends: L-Lecture; T-Tutorial/Teacher Guided Theory Practice; P - Practical, C - Credit, SEE - Semester End Examination, CIA - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Content

Unit No.	Topics	Teaching Hours	Weightage	Mapping with CO
1	Introduction, Objective. Type of Cyber Security, Denial of Service (DoS), Distributed Denial of Service (DDoS), Man-in-the-Middle (MITM) Attacks, Crypto jacking, SQL Injection, Spamming, Cyberterrorism, Digital Property Misappropriation, Zero-Day Exploitation, Phishing, Digital Vandalism, Cyberstalking, Cyber Frauds and Forgery. Types of Computer Malware, Viruses, Trojan Horse, Rootkit, Spyware, Worms, Adware, Scareware, Browser Hijacker	15	35%	CO1

2	Securing System Firewall Settings, Antivirus Software, Anti-Spyware Software, Anti-Spam Software, Security Updates, Secure Browsing Settings, Scan Devices before Data Transfer, Social Engineering Attack Precaution. Password Management: Introduction, Effective Password Management Tips, Creating and Managing Secure Passwords, Password Manager Tools	15	35%	CO2 CO3
3	Cyber Law of India Overview of India's Information Technology Amendment Act 2008 (IT Act 2008), hacker vs cracker, liabilities - civil and penal, cyber theft and IPC sec 378, IT Act 2008 - sections 43, 65 and 66, how to file a complaint of suspected hacking	15	30%	CO4

Suggested Distribution of Theory Marks Using Bloom's Taxonomy						
Level	Remembrance	Understanding	Application	Analyse	Evaluate	Create
Weightage	20	30	30	20	0	0

NOTE: This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books

Sr. No.	Name of Reference Books
1	Gunter Ollmann 2007. The Phishing Guide Understanding & Preventing Phishing Attacks. IBM Internet Security Systems.
2	Thomas Erl, Ricardo Puttini, ZaighamMahmood, Cloud Computing: Concepts, Technology & Architecture, Prentice Hall, 2013
3	RajkumarBuyya, Christian Vecchiola, S. ThamaraiSelvi, Mastering Cloud Computing, Tata McGraw-Hill Education, 2013.