

MYMENSINGH POLYTECHNIC INSTITUTE

TECHNOLOGY: **Computer**

Semester Plan

Sub Name: Cyber Security & Ethic
Sub Code: 66675
Semester: 7 th , Shift: 2 nd

T	1 Nos theory class per week
P	3 Period practical class per week
C	2 Credit hour & 1 Credit 50 Mark

Week	Theory	Learning Materials	Practical Job No	Practical
	Content			Content
	Specific Objectives			Practical Name
1	1. Understand Cyber Security 1.1 Define is Cyber Security. 1.2 Classify Cyber Security. 1.3 Describe the necessity and role of cyber security. 1.4 Distinguish between Information security and Cyber security.	MKER PEN, WHITE BOARD, MULTIMEDIA CONTENT & YOU TUBE CONTENT	1	Apply password to a computer system and various files such as Microsoft Word, Microsoft Excel etc.
2	1.5 Describe and explain why information and cyber security are important to business and to society. 1.6 Explain Security, Identity, Authentication, Confidentiality, Integrity, Availability, Threat, Vulnerability, Risk and hazard.		2	Apply password to a computer system and various files such as Microsoft Word, Microsoft Excel etc.
3	2. Understand Data and Evidence Recovery 2.1 Define file recovery. Classify different procedures for file recovery. 2.2 Define data recovery and Forensic Tool Kit (FTK). 2.3 Describe various types of computer forensics tools.		3	Practice to recover an e-mail forgotten password.
4	2.3 Describe various types of computer forensics tools. 2.4 Discuss various Personal Identifiable Information 2.5 Discuss various types of E-mail threats. Class Test-1		4	Apply various security steps in e-mail.
5	3. Understand Cyber Crimes 3.1 Define Cyber Crimes. 3.2 Discuss various types of Cyber crimes cyber-bullying, cyber extortion, Phishing, Identity Thefts, Scamming, Cyber laundering (Money Laundering 2.0), DDoS Attack etc.		5	Apply various security steps in social media such as Facebook login.
6	3.3 Define Malware. Describe various types of Malware. 3.4 Describes various types of Cyber Crimes such as Hacking, Cracking, Virus Attacks, Pornography, Software piracy. Quiz Test-1		6	Install antivirus software and scan computer system with the software.
7	3.5 Define Intellectual property. 3.6 Describe Tracking, IP Tracking, E-mail recovery, Encryption and Decryption methods.		7	Install antivirus software and scan computer system with the software.

	3.7 Describe password cracking.		
8	Mid Term Examination	8	Mid Term Examination
9	4. Understand Hacking 4.1 Define Hacking with its classification. 4.2 Describe the reasons and justification of hacking.	9	Install firewall to a computer system and prevent the computer system from intruder
10	4.3 Describe various Hacking techniques such as Vulnerability scanning, Brute force Attack, Dictionary attack, Password cracking, Packet sniffer, Spoofing attack (Phishing), Programmed threats, Social Engineering etc.	10	Install firewall to a computer system and prevent the computer system from intruder
11	4.4 Define Hacker. 4.5 Describe types of hacker such as script kiddie, white hat (Ethical hacker), black hat (crackers), gray hat, green hat, Red hat, blue hat etc.	10	Use a hashing program to verify the integrity of data with HashCalc program.
12	5. Understand the basics of security 5.1 Define firewalls and Attack prevention. 5.2 Describe types of firewalls. 5.3 Make a comparison among the types of firewalls. Class Test-2	12	Use a hashing program to verify the integrity of data with HashCalc program.
13	5.4 Describe basic online security. 5.5 Describe the motives of hackers. 5.6 Describe firewalls as the process of Attack Prevention.	13	Practice to sending Confidential Information over Email utilizing WinZip.
14	6. Understand Cyber Ethics 6.1 Define Cyber Ethics. 6.2 Define Ethical hacking. 6.3 Describe various aspects of Ethical hacking. Quiz Test-2	14	Practice to sending Confidential Information over Email utilizing WinZip.
15	6.4 Describe various laws of Bangladesh about Cyber Security. 6.5 Describe various laws of Bangladesh about Cyber Crimes.	15	REVIEW CLASS
16	REVIEW CLASS	Problem Solve Class	

REFERENCES:

1. Cyber Security Essentials - CRC Press
2. হ্যাকিংয়ের গোলকর্থা - দিলোয়ার আলম, মনিরুজ্জামান
3. সাইবার নিরাপত্তা ও তথ্য প্রযুক্তি ব্যবহারে সতর্কতা - শ্যামসুন্দর সিকদার

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