

Module No.	Unit No.	Topics	Hrs
1.0		Overview of Networks and IT Infrastructure	09
	1.1	Overview of OSI and TCP/ IP Networks, introduction to IP Addressing scheme, introduction to Networking Components	
	1.2	Information Technology, Design Issues of IT Organizations and IT Infrastructure, Information System Design Process, IT Infrastructure Management, Challenges in IT Infrastructure Management, Determining Customers, Requirements, Security controls and safeguards, IT security Plans.	
2.0		Introduction to Information Security	06
		Cyber-attacks, Vulnerabilities, Defense Strategies and Techniques, Authentication Methods- Password, Token and Biometric, Access Control Policies and Models (DAC, MAC, RBAC, BIBA, Bell La Padula), Authentication and Access Control Services- RADIUS, TACACS, and TACACS+	
3.0		Software Vulnerabilities	04
		Buffer overflow, Format String, Cross-Site Scripting, SQL Injection, Malware: Viruses, Worms, Trojans, Logic Bomb, Bots, Rootkits	
4.0		Operating System and Database Security	08
	4.1	Introduction operating system security, system security planning, Application security, Linux/ Unix security, Windows, security, Security Maintenance,	
	4.2	Database Security Requirements, Reliability and Integrity, Sensitive Data, Inference Attacks, Multilevel Database Security	
5.0		Wireless Security	05
		The need for Wireless Network Security, Attacks on Wireless Networks, Security services, WEP & WPA protocols, Mobile IP, Virtual Private Network (VPN): PPTP, L2TP, IPSec	
6.0		Web Security	07
		Introduction: Transport Protocol and Data Formats, Web Browser, Threat Model Authenticated Sessions: Cookie Poisoning, Cookies and Privacy, Making Ends Meet Code Origin Policies, Cross-Site Scripting: Cookie Stealing, Defending against XSS, Cross-Site Request Forgery, JavaScript Hijacking	
		Total	39