

Course 13. Network Security

Sl. No.	Modules	Hours
1	Network Fundamentals	40
2	Network Defense and Counter Measures	100
3	IT Infrastructure Management	80
4	Management Development Program	60
5	Project	40
	Total	320

Eligibility: Any Engineering /Science graduate with mathematics up to 10+2 level

Course Prerequisite: Candidate should have basic knowledge of computer and networking fundamentals with logical approach.

Course Focus: The objective of this course is to provide skills to those students who want to make carrier in Network defence and IT Infrastructure Management.

Detailed Syllabus**Network Fundamentals**

- Introduction to computer Networking
- Categories of Networking according to size (LAN,WAN,DAN,MAN)
- Types of connections
- Network classifications (Wired, Wireless)
- Network Hardware Devices (Hub, Switch, Modem, Router, Bridge , Repeaters , firewall etc) Overview
- TCP/IP overview
- IP addressing, Sub-netting, super-netting
- IPv6
- Planning and Implementing
- Architecture of Internet and intranet
- Port Security
- Spanning tree Protocol
- Troubleshooting

Network Defense and Countermeasures

- Security Fundamentals
- Firewalls
- Define the Types of Firewalls
- Application Layer Firewalls
- Packet Filtering Firewalls
- Hybrids
- Intrusion Detection And Prevention
- Intrusion risks
- Security policy
- Monitoring traffic and open ports
- Detecting modified files

- Investigating and verifying detected intrusions
- Recovering from, reporting and documenting intrusions
- Define the Types of intrusion Prevention Systems
- Setup an IPS
- Manage an IPS
- Understand Intrusion Prevention
- Issues with Intrusion Prevention
- IP Signature and Analysis
- Risk Analysis
- Virtual Private Networks
- Define Virtual Private Networks
- Deploy User VPNs
- Benefits of user VPNs
- Managing User VPNs
- Issues with User VPNs
- Deploy Site VPNs
- Benefits of Site VPNs
- Managing Site VPNs
- Issues with Site VPNs

IT Infrastructure Management

- Introduction to ITIL
- Service Strategy
- Service Design
- Service Transition
- Service Operation
- Continual Service Improvement
- Data Centre Management
 - Introduction to DCM
 - Data Centre design
 - Best Practices in IT
 - Server Security
 - Storage area network

Management Development Program

Introduction to communication, Barriers to communication, Kind of communication, Confidence building Non-verbal Communication, Fluency and vocabulary, Synonyms, Antonyms, Grammar, Noun Pronoun, Verb, Adjective, Preposition, Conjunction, Words of Idioms & phrases, Sentence Construction, Fill up the blanks, Pronunciation, Conversation practice, Polite Conversation, Greeting, Logical reasoning, General Aptitude, Writing: Covering letter, Resume, Email, Presentation Skill, group discussion, Interview skills, Mock interview

Project