LOGIQO
IT ACADEMY

# CYBER SECURITY FUNDAMENTALS

## Course Overview

This Cyber Security Fundamentals course introduces students to modern cyber threats, defensive techniques, and security best practices used to protect systems, networks, and data in real-world environments.

## Target Audience

1. • IT & Networking beginners
2. • Students interested in Cybersecurity careers
3. • System & Network Administrators
4. • Anyone seeking security awareness & skills

## Course Index



## Module 1 – Introduction to Cyber Security

1. • Cybersecurity concepts & domains
2. • CIA Triad (Confidentiality, Integrity, Availability)
3. • Blue Team vs Red Team

## Module 2 – Networking for Cyber Security

1. • Network protocols & ports
2. • Firewalls & network segmentation
3. • Common network attacks

## Module 3 – Operating System Security

1. Windows security fundamentals
2. Linux security & permissions
3. Patch management & hardening

## Module 4 – Threats, Attacks & Vulnerabilities

1. Malware & ransomware
2. Phishing & social engineering
3. Web & network attacks

## Module 5 – Security Tools & Monitoring

1. Nmap & vulnerability scanning
2. SIEM & log monitoring
3. IDS / IPS concepts

## Module 6 – Defensive Security & Best Practices

1. Security policies & access control
2. Encryption & authentication
3. Backup & disaster recovery

## Module 7 – Final Project & Incident Response

1. Incident response lifecycle
2. Security incident analysis
3. Final cybersecurity project

## Learning Outcomes

1. Understand modern cyber threats
2. Secure systems & networks
3. Use security tools effectively
4. Apply incident response techniques