

ABOUT COURSE

Cyber Security

Wishing to become a Professional Cyber Security Expert? Whether you're in Bangalore or prefer online learning, our Cyber Security Program is designed just for you! Build a strong and rewarding career in Cyber Security with the skills to protect systems, networks, and data from cyber threats, and become a trusted security professional in today's digital world.

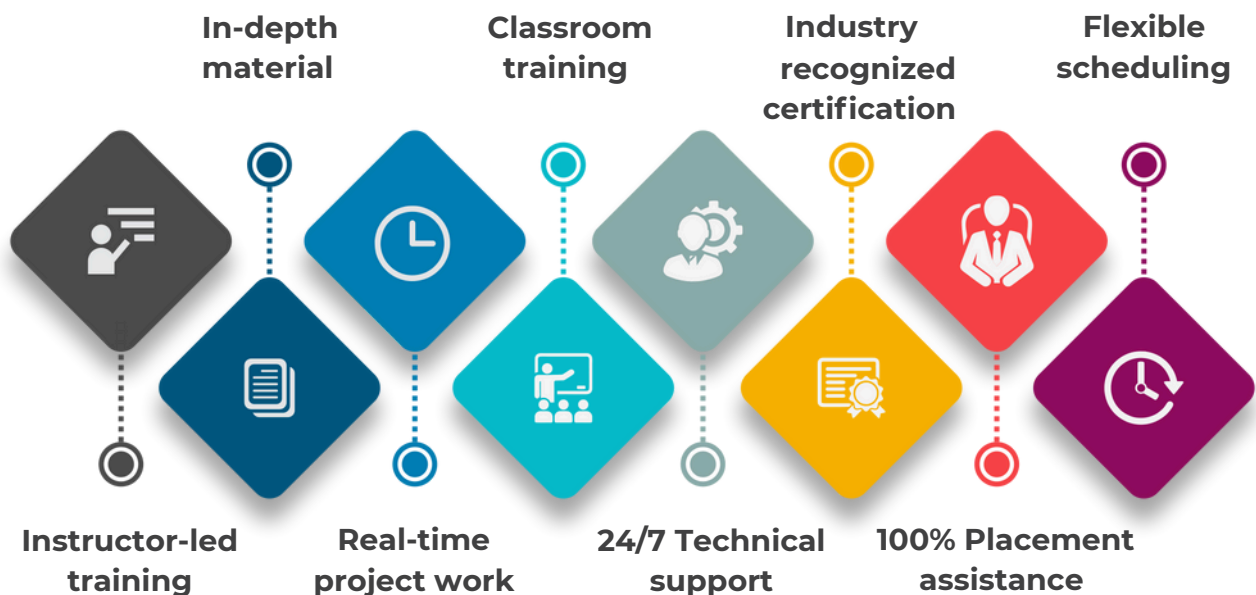


DURATION
80 DAYS



CLASS SIZE
MAX 15
IN ONE BATCH

PROGRAM FEATURES



WHO CAN DO Cyber Security COURSE

Anyone interested in building web applications – whether a fresher, IT professional, or career switcher – can do this course (online or offline).



**Freshers/
Graduates/Students**



**Job
Seekers**



**Working
Professionals**

OUR LEARNERS WORK AT



COURSE CONTENT

Cyber Security

MODULE : 01

Basics of Networks

- What is networking and why it is important.
- Ways of communication in networks.
- Differences between simplex, half-duplex, and full-duplex communication.
- Types of communication technology.
- Network typologies:
 - LAN
 - MAN
 - WAN
- Real-world applications of networking.

MODULE : 02

OSI and TCP/IP Models

- Understanding OSI model layers and their functions.
- Introduction TCP/IP model.
- IP, TCP, and UDP header structures.
- Differences and similarities between OSI and TCP/IP.
- Common network attacks targeting each layer.
- Layer-specific attack scenarios and mitigation.

MODULE : 03

Networking Devices

- Overview and functions of routers.
- Switches: types and operations.
- Hubs and their use in networks.
- Repeaters and their role in signal transmission.
- Differences and selection criteria for each device.

MODULE : 04

Network & Host Security Devices

- Firewalls: concept and types.
- Web Application Firewalls (WAF).
- Intrusion Detection and Prevention Systems (IDS/IPS).
- Data Loss Prevention (DLP) solutions.
- Proxy servers and their security applications.
- Integration of these devices in secure network architectures.

MODULE : 05

IP Addressing Schema

- Network Address Translation (NAT):
 - Purpose
 - Types.
- IPv4 and IPv6 basics and their differences.
- Public vs. private IP addresses.
- DNAT
- SNAT
- PAT .
- IP subnetting and supernetting.

MODULE : 06

Ports and Protocols

- Difference between protocol and port.
- Types of ports (well-known, registered, dynamic/private).
- Essential port numbers (FTP, SSH, SMTP, DNS, DHCP, etc.).
- Protocol usage scenarios and differences.
- Security concerns with open and vulnerable ports.

MODULE : 07

Information Security & IoT Security

- What is information security and its importance.
- Securing personal and organizational data.
- Information Security goals (CIA Triad: Confidentiality, Integrity, Availability).
- Introduction to Internet of Things (IoT).
- Securing IoT devices and environments.
- Approaches to data security in modern contexts.

MODULE : 08

CIA Triad in InfoSec

- Explanation of the Confidentiality, Integrity, and Availability (CIA) model.
- Examples of CIA in different security scenarios.
- Why CIA is crucial to information security management.
- Real-life breaches impacting each CIA aspect.
- Strategies to enhance CIA across digital assets.

MODULE:09

Malware and Threats

- Definition and study of malware.
- Types of malware: Virus, Worm, Trojan, Rootkit, and their differences.
- How malware propagates and executes (including in VMs).
- Malware analysis basics and career pathways.
- Typical malware behaviors and mitigation strategies.