

# Networking and Cyber Security

Welcome to the Future of Connectivity and Security!

In today's digital age, where information is the new currency, the importance of robust Networking and Cyber Security cannot be overstated. This brochure is your gateway to understanding and implementing the latest technologies and practices to safeguard your networks and digital assets.

Embark on a journey of knowledge and empowerment with our comprehensive Networking and Cyber Security course. Gain the skills and expertise needed to safeguard digital landscapes in an ever-evolving technological era.



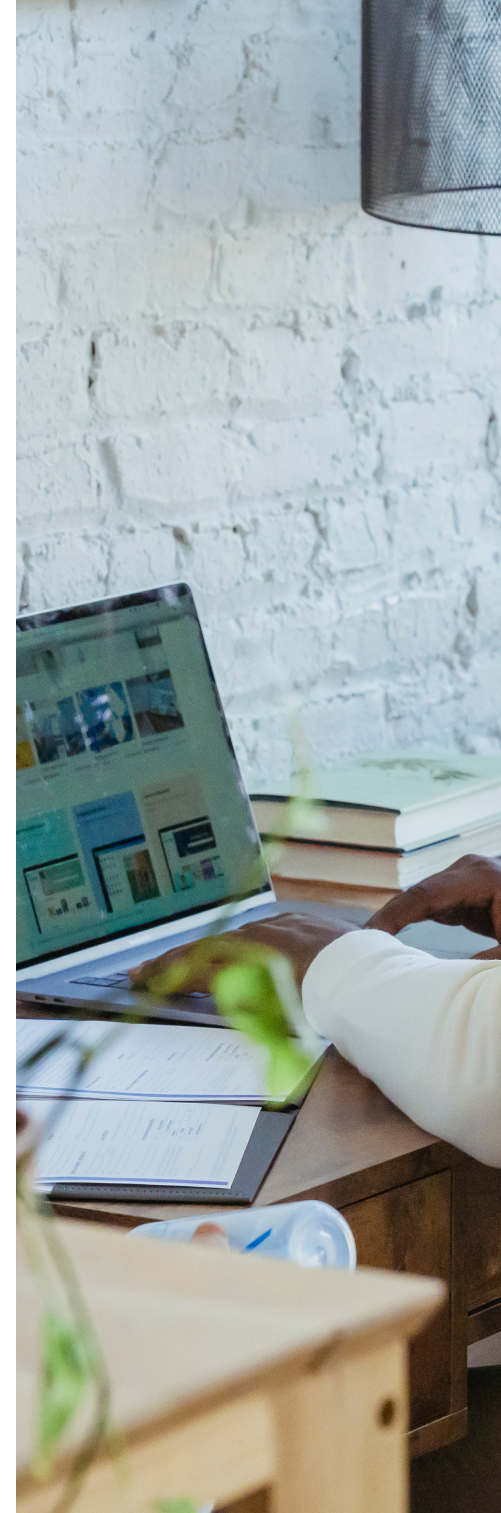
**Discover**  
*What Our School  
Has to Offer!*

# Experience practical application through:

- Simulated cyber attacks
- Configuring firewalls and intrusion detection systems
- Designing secure network architectures

## Ideal for:

- IT Professionals
- Network Administrators
- Cyber Security Enthusiasts
- System Analysts
- IT Managers



# DURATION

5 Months

# Prerequisite

## Laptop:

4GB RAM at least with Core 2 Duo/Core i3 and above is good for the program

# LEARNING MODEL



TUTOR-LED  
PHYSICAL CLASSES



COLLABORATIVE & INTERACTIVE  
LEARNING



INDIVIDUAL & GROUP  
BASED PROJECTS



VIRTUAL CLASS



# About Syllabus

This course is designed to provide students with a comprehensive understanding of networking and cybersecurity concepts. The course will cover fundamental networking principles, protocols, and technologies, and will delve into the essential aspects of cybersecurity, including threat landscapes, risk management, and security practices. Practical hands-on exercises and real-world case studies will be used to reinforce theoretical concepts.

## Prerequisite

- Basic understanding of computer systems and operating systems.

## Course Duration

- 5 months



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# SYLLABUS

## **Week 1-2: Introduction to Networking**

- Overview of Computer Networks
- Networking Models (OSI, TCP/IP)
- Network Devices and Topologies
- Internet Protocols (IPv4, IPv6)
- Subnetting and Addressing

## **Week 3-4: Network Infrastructure**

- Routing and Switching
- VLANs and Inter-VLAN Routing
- Wireless Networking
- Network Troubleshooting and Tools

## **Week 5-6: Transport Layer Protocols**

- Transmission Control Protocol (TCP)
- User Datagram Protocol (UDP)
- Port Numbers and Services
- Network Performance Optimization

## **Week 7-8: Introduction to Cybersecurity**

- Understanding Cybersecurity
- Cybersecurity Frameworks
- Threat Landscape and Attack Vectors
- Security Policies and Procedures

## **Week 9-10: Cryptography**

- Basics of Cryptography
- Encryption and Decryption
- Public Key Infrastructure (PKI)
- Cryptographic Protocols (SSL/TLS)



# SYLLABUS

## **Week 11-12: Network Security**

- Firewalls and Intrusion Detection Systems (IDS)
- Virtual Private Networks (VPNs)
- Network Access Control (NAC)
- Security Best Practices

## **Week 13-14: Cyber Threats and Defense Strategies**

- Malware and Antivirus
- Social Engineering Attacks
- Incident Response and Forensics
- Security Awareness Training

## **Week 15-16: Wireless Network Security**

- Security in Wi-Fi Networks
- WPA/WPA2/WPA3
- Wireless Intrusion Prevention Systems (WIPS)
- Secure Configuration of Wireless Networks

## **Week 17-18: Cloud Security**

- Introduction to Cloud Computing
- Cloud Security Challenges
- Security in Cloud Environments
- Cloud Security Best Practices

## **Week 19-20: Emerging Technologies and Future Trends**

- Internet of Things (IoT) Security
- Artificial Intelligence (AI) in Cybersecurity
- Blockchain and Cybersecurity
- Cybersecurity Career Paths and Certifications

**NOTE:** *This syllabus is subject to change at the discretion of the instructor. Any modifications will be communicated in advance to the students.*



# SYLLABUS

## **Assessment:**

- Weekly Quizzes
- Midterm Exam
- Group Projects (Network Design and Security Analysis)
- Final Exam



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# ABOUT US

We are a school for individuals looking to gain technical skills and kickstart a career in Tech. Tech Zone Academy Offers Training, Consultancy, Advisory And All Related Services In All Areas Of Information Technology Including Computer Hardware And Software, Data Communication, Telecommunications. We deliver world-class software training, and tech infrastructure, to software engineers in rural and urban Africa, while deploying their skills to global technology needs. Take your skills from beginner to industry ready in 6 - 12 months. Neither a degree nor prior tech experience is required.





# Apply Now

Limited spots available, apply now  
at [techzone.academy](https://techzone.academy)

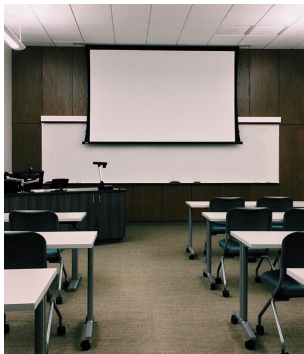
## Why choose us?

Small Class  
Sizes

Experienced  
Teachers

Safe  
Environment

Supportive  
Peers



## Open Enrollment

for students of all backgrounds and  
abilities. Come visit us to learn more!