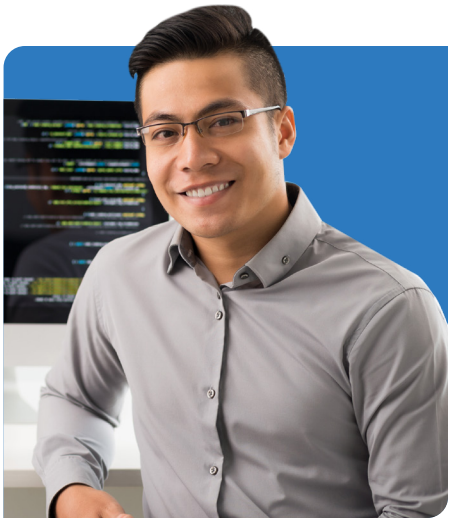
ThriveDX™

ThriveDX Network Security

TDXCS-6



ThriveDX Network Security Course

Time Commitment	Skill Level	Format	Course Category
40 hours total (5 days, 8 hours/day)	Basic Level: Cybersecurity Essentials	Online (Live), Instructor-Led	Network Security

This course equips professionals with the fundamental skills needed to effectively secure, manage, and operate network communication equipment and systems across diverse organizational settings.

Each module is strategically crafted to position learners for success, paving the way for them to secure prominent roles in both technological and business-oriented sectors.

Who Should Attend:

- IT personnel
- Security managers
- Security technicians
- Individuals who want to enhance their skills in the fields of network monitoring and protection solutions

Prerequisites:

- Familiarity with client-server communication models, networking concepts, and basic computer operations
- A basic understanding of potential cyber threats and security awareness

Relevant for the Following Work Roles:

- Network Security Analyst
- SOC Analyst
- Cybersecurity Technician
- Information Security

Upon Completion, Participants will Emerge with:

- Proficiency in network security systems and architecture, including redundancy methods and design principles.
- Ability to implement secure management and access controls using authentication, authorization, and accounting techniques.
- Knowledge of user management, permissions, and security best practices.
- Understanding of network security models, cryptography, and the use of encryption for securing data.
- Competence in network monitoring, including the use of Simple Network Management Protocol (SNMP), NetFlow, and modern monitoring tools for effective network management.
- Knowledge of virtual private networks (VPNs), including concepts, protocols, deployment options, and security considerations.

Program Structure

Module 1

Network Security Systems & Architecture

- Cisco Certified CyberOps Associate
- Networking Recap
- Redundancy Methods
- Network Security Design
- Network Security Systems

Module 2

Secure Management & Access

- Authentication, Authorization, and Accounting
- RADIUS vs. TACACS+
- 802.1X Authentication

Module 3

Network Security Models & Cryptography

- Network Security Models
- Cryptography Overview
- Hash Algorithms
- Encryption
- Digital Signatures and Certificates

Module 4

Firewalls

- Introduction to Firewalls
- Structure and Configuration of Firewall Rules
- Firewall Services & Features
- NGFW & DPI

Module 5

Virtual Private Networks (VPN)

- Basic VPN Concepts
- VPN Protocols
- VPN Deployment Options
- VPN Security Considerations
- Remote Access Service

Module 6

Network Monitoring

- Introduction to Network Monitoring
- Simple Network Management Protocol
- NetFlow
- Key Network Monitoring Tools
- Modern Network Monitoring Tools and Techniques

Module 7

Network Traffic Analysis

- Introduction to Network Packet Analysis
- Wireshark and Network Packet Analysis
- NetworkMiner
- tcpdump and Zeek

Module 8

Network Attacks & Mitigations

- Understanding Network Attacks
- Active Network Attacks
- Data Link / OSI Layer 2 Attacks
- Network / OSI Layer 3 Attacks
- Transport / OSI Layer 4 Attacks
- Transport to Application / OSI Layers 5-7 Attacks

Module 9

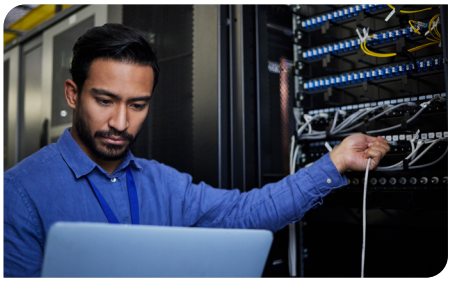
Threat Detection, Prevention, and Response

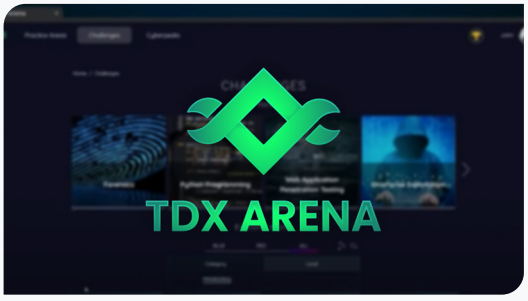
- Introduction to IDS/IPS
- IDS/IPS Considerations
- IDS/IPS Detection Methods
- Introduction to NDR and MDR

Certification Readiness

All participants completing the course will receive a **ThriveDX Course Completion Certification**. Participants completing the final accreditation exam will receive a **ThriveDX Cyber Network Analyst Certification**. This course also aligns with the required knowledge of the CompTIA® Network+ Certification.

Note: The certification subjects may change based on the certification provider, and additional study and research may be necessary to meet certification requirements.





Embedded Labs and Challenges

The course includes our state-of-the-art proprietary cloud-based digital education platform, **TDX Arena**, in which real-life scenarios and advanced tech teaching meet in a gamified environment.