

Course Objectives

1. Networking Today
2. Basic Switch and End Device Configuration
3. Protocols and Models
4. Physical Layer
5. Number Systems
6. Data Link Layer
7. Ethernet Switching
8. Network Layer
9. Address Resolution
10. Basic Router Configuration
11. IPV4 Addressing
12. IPV6 Addressing
13. ICMP
14. Transport Layer
15. Application Layer
16. Network Security Fundamentals
17. Build a Small Network

Upon completion of this course, students will be able to:

- Configure switches and end devices to provide access to local and remote network resources.
- Explain how physical and data link layer protocols support the operation of Ethernet in a switched network.
- Configure routers to enable end-to-end connectivity between remote devices.
- Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices.
- Explain how the upper layers of the OSI model support network applications.
- Configure a small network with security best practices.
- Troubleshoot connectivity in a small network

Target Audience

The target audience is anyone who desires a practical and technical introduction to the field of networking. This includes field technicians, data technicians, business technicians, headend technicians, network operation center (NOC) staff, network engineers, network administrators, and IT help-desk staff.