

# NETWORK CURRICULUM

#### **NETWORKING FUNDAMENTALS**

- 1.1 Basic Switch, Router and End Device Configuration
- 1.2 Protocols and Models (OSI-TCP/IP)
- 1.3 Network topologies and network types
- 1.4 Cables and connectors
- 1.5 Common ports and protocols
- 1.6 Number Systems
- 1.7 Ethernet Switching
- 1.8 Address Resolution-ICMP
- 1.9 IPv4 Addressing
- 1.10 IPv6 Addressing

# **NETWORK IMPLEMENTATIONS**

- 2.1 Switching Concepts
- 2.2 VLANs-Inter-VLAN Routing
- 2.3 STP Concepts
- 2.4 EtherChannel



- 2.5 SLAAC and Network Service (DHCP-DNS-NTP)
- 2.6 FHRP Concepts
- 2.7 Wireless LAN Concepts and Configuration
- 2.8 Static and Dynamic Routing (RIP, E/IGRP, BGP, OSPF)
- 2.9 ACL Concepts
- 2.10 NAT for IPv4
- 2.11 QoS Concepts

# NETWORK OPERATIONS

- 3.1 Organizational Documents and Policies
- 3.2 High Availability-Cloud Concepts
- 3.3 Network Management and Monitoring (SNMP, CDP, LLDP, SYSLOG, Netflow)
- 3.4 Network Virtualization and Automation

# **NETWORK SECURITY CONCEPTS**

- 4.1 Common types of attacks
- 4.2 Network hardening techniques
- 4.3 VPN and IPsec Concepts

# NETWORK TROUBLESHOOTING

