

## **Topic: Networking Introduction**

Number of Classes: 1

What to expect from the class.

Course Introduction.

Sharing access to the folder and providing Udemy credentials.

## **Topic: IP Addressing and Subnetting**

Number of Classes: 2-2.5

IP address and MAC address.

Private and Public IP addressing.

IP address Classes.

Subnetting techniques and exercises.

## **Topic: Switching and VLANs**

Number of Classes: 6

Data Link Layer Introduction.

Understanding traffic flow in the switch.

Vlans & Port Types.

VTP, Stacking, VSS, VPC, and Cabling.

Inter Vlan Routing.

Physical to logical mapping.

STP and its types.

Ether Channels and LACP.

Quiz and upgrade Procedure.

## **Topic: Routing and Protocols**

Number of Classes: 8-8.5

Network layer Introduction.

Distance vector and link state routing protocols.

OSPF, EIGRP, BGP, Static routing.

Redundancy Protocols (HSRP, VRRP, GLBP).

TACACS, ACL, Prefix list, Route Maps, Redistribution of routes.

Quiz and Troubleshooting session.

## **Topic: Firewall and Security**

Number of Classes: 5

Introduction to TCP/UDP.

Firewall Rules, URL filtering, APP ID's.

Building Templates, device groups, and Monitoring.

IPSEC tunnels, NAT, VPN.

Troubleshooting session, LAB, and Upgrade Procedure.

## **Topic: Load Balancing and Networking**

Number of Classes: 4

Introduction to load balancing techniques (DNS, network LB).

LTM, GTM.

SSL Profiles, Cookie Sessions, HTTP Profiles, TCP profiles, SNAT, Monitoring, Troubleshooting.

Upgrades, ASM, WAF.

### **Topic: Wireless Networking**

Number of Classes: 1

Introduction to wireless and wired networks.

Access points, controller, and their management.

Heat Maps and tools introduction.

Upgrades and Troubleshooting session.

### **Topic: WAN Technologies**

Number of Classes: 2-2.5

MPLS, VPN, SDWAN.

Troubleshooting techniques.

### **Topic: Cloud and Automation**

Number of Classes: 2-3

### **Topic: SD Network (ACI)**

Number of Classes: 3