CCNA (200 HOURS)

1. Network Access

- VLANs
- Layer 2 discovery protocols (Cisco Discovery Protocol and LLDP)
- EtherChannel (LACP)
- Rapid PVST+ Spanning Tree Protocol
- Wireless Architectures and AP modes
- WLAN components (AP,WLC, access/trunk ports, and LAG)
- AP and WLC management access connections (Telnet, SSH, HTTP,HTTPS, console, and TACACS+/RADIUS)
- A wireless LAN access for client connectivity using GUI only such as WLAN creation, security settings, QoS profiles, and advanced WLAN settings

2. IP Connectivity

- Routing table
- Routing
- IPv4 and IPv6 static routing
- Single area OSPFv2
- First hop redundancy protocol

3. IP Services

- NAT
- NTP
- DHCP and DNS
- SNMP
- Syslog
- Forwarding per-hop behavior (PHB) for QoS such as classification, marking, queuing, congestion, policing, shaping
- SSH
- TFTP/FTP

4. Security Fundamentals

- Key security concepts (threats, vulnerabilities, exploits, and mitigation techniques)
- Security program elements (user awareness, training, and physical access control)
- Access control using local passwords
- Security password policies elements, such as management, complexity, and password alternatives (multifactor authentication, certificates, and biometrics)
- Remote access and site-to-site VPNs
- Access control lists
- Layer 2 security features (DHCP snooping, dynamic ARP inspection, and port security)
- AAA
- Wireless security protocols (WPA, WPA2, and WPA3)
- WLAN using WPA2 PSK using the GUI

5. Automation and Programmability

- Automation basics
- Controller-based and software defined architectures (overlay, underlay, and fabric)
- Traditional campus device management with Cisco DNA Center enabled device management
- REST-based APIs (CRUD, HTTP verbs, and data encoding)
- Capabilities of configuration management mechanisms Puppet, Chef, and Ansible
- Interpret JSON encoded data

LINUX (50 HOURS)

1. Linux Distributions

- Red Hat, CentOS, and Fedora
- Debian, Ubuntu, Mint

2. Text Editors

- Nano and vi introduction
- Nano overview and shortcuts
- Interactive VIM Tutorial

3. Linux Fundamentals

- Root = Power
- Linux Prompt Basics

4. File Systems

- Tree and directories

5. Files, Tools, Owners, Permission

- ls. help, man, grep, more and less
- Abbreviated and long arguments, owners, groups, and permissions
- Owners, groups, and basic permission example

FORTINET (100 HOURS)

- Intro & Basic Configuration
- Routing
- VDOMs
- Firewall Policies and NAT
- Firewall Authentication
- FSSO
- Certificate Operations
- SSL VPN
- IPsec VPN
- Antivirus
- Web Filtering
- IPS and Application control
- SD-WAN
- Security Fabric
- HA
- Diagnostics

AWS (50 HOURS)

- Cloud Computing Introduction
- Account Setup
- Identity and Access Management
- AWS Services and CLI
- AWS EC2 – Overview
- Cloud Storage (EBS S3 EFS)