Cisco Networking Certificate

Spring 2019 Outcomes

1. Analyze networking models.
2. Analyze networking protocols.
3. Configure local area networks.
4. Configure wide area networks.
5. Define common industry terms and standards.
6. Troubleshoot LAN/WAN systems.

**Course Outcomes**

CPTR1108 - CISCO 1

1. Compare various networking models.
2. Compare the various types of networking media.
3. Demonstrate a working knowledge of the TCP/IP protocol stack.
4. Recognize the components involved with assembling a network.
5. Design and assemble small working networks.
6. Recognize the tools necessary to troubleshoot networks.
7. Solve network hardware and software problems.
8. Use network monitoring tools to troubleshooting equipment failures.
9. Explain IP addressing and subnetting.

CPTR1118 - CISCO 2

1. Maintain router operating system.
2. Analyze a router boot process.
3. Examine components in a router.
4. Use router command line editing.
5. Identify layer three routing protocols.
6. Configure routing protocols.
7. Configure a router to connect to a network.
8. Develop an access list.
9. Configure access lists.
10. Troubleshoot router connectivity.
11. Troubleshoot a routed network.

CPTR2200 - CISCO III

1. Analyze route aggregation with VLSM.
2. Examine classless interdomain routing and the protocols that support it.
3. Calculate subnets with VLSM.
4. Configure the router protocols RIPv2, OSPF and EIGRP.
5. Examine LAN segmentation using switches and VLANs.
6. Configure LAN switches,
7. Maintain LAN switch operating systems.
8. Configure Spanning Tree Protocol (STP) to eliminate switching loops.
9. Create, verify and delete VLAN configurations.
10. Examine trunking and inter-VLAN routing.
11. Configure basic inter-VLAN routing.

CPTR2208 - CISCO IV

1. Analyze the IP address space depletion solutions of NAT, PAT and DHCP.
2. Configure NAT, PAT and DHCP.
3. Analyze the WAN link options of circuit switching and packet switching.
4. Identify WAN devices and WAN link standards.
5. Compare IPv4 and IPv6.
6. Configure PPP and Frame Relay WAN link technologies.
7. Configure PAP and CHAP authentication.
8. Configure basic router security.
9. Configure standard and extended access control lists.
10. Examine network management tasks.
11. Differentiate between the WAN layer design models.