

COURSE AGENDA:

CCNP Cisco Certified Network Professional Training Program Outline

Examining Cisco Enterprise Network Architecture

Understanding Cisco Switching Paths

Implementing Campus LAN Connectivity

Building Redundant Switched Topology

Implementing Layer 2 Port Aggregation

Understanding EIGRP

Implementing OSPF

Optimizing OSPF

Exploring EBGp

Implementing Network Redundancy

Implementing NAT

Introducing Virtualization Protocols and Techniques

Understanding Virtual Private Networks and Interfaces

Understanding Wireless Principles

Examining Wireless Deployment Options

Understanding Wireless Roaming and Location Services

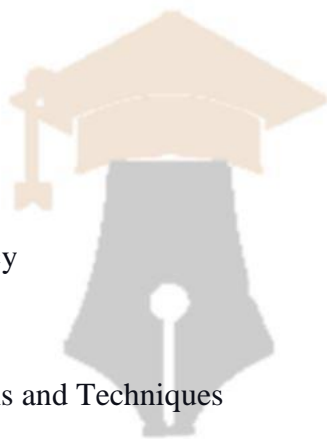
Examining Wireless AP Operation

Understanding Wireless Client Authentication

Troubleshooting Wireless Client Connectivity

Introducing Multicast Protocols

Introducing QoS



Implementing Network Services

Using Network Analysis Tools

Implementing Infrastructure Security

Implementing Secure Access Control

Understanding Enterprise Network Security Architecture

Exploring Automation and Assurance Using Cisco DNA Center

Examining the Cisco SD-Access Solution

Understanding the Working Principles of the Cisco SD-WAN Solution

Understanding the Basics of Python Programming

Introducing Network Programmability Protocols

Introducing APIs in Cisco DNA Center and vManage

Lab outline

Investigate the CAM

Analyze Cisco Express Forwarding

Troubleshoot VLAN and Trunk Issues

Tuning Spanning Tree Protocol (STP) and Configuring Rapid Spanning Tree Protocol (RSTP)

Configure Multiple Spanning Tree Protocol

Troubleshoot EtherChannel

Implement Multi-area OSPF

Implement OSPF Tuning

Apply OSPF Optimization

Implement OSPFv3

Configure and Verify Single-Homed EBGP

Implementing Hot Standby Routing Protocol (HSRP)

Configure Virtual Router Redundancy Protocol (VRRP)

Implement NAT

Configure and Verify Virtual Routing and Forwarding (VRF)

Configure and Verify a Generic Routing Encapsulation (GRE) Tunnel

Configure Static Virtual Tunnel Interface (VTI) Point-to-Point Tunnels

Configure Wireless Client Authentication in a Centralized Deployment

Troubleshoot Wireless Client Connectivity Issues

Configure Syslog

Configure and Verify Flexible NetFlow

Configuring Cisco IOS Embedded Event Manager (EEM)

Troubleshoot Connectivity and Analyze Traffic with Ping, Traceroute, and Debug

Configure and Verify Cisco IP SLAs

Configure Standard and Extended ACLs

Configure Control Plane Policing

Implement Local and Server-Based AAA

Writing and Troubleshooting Python Scripts

Explore JavaScript Object Notation (JSON) Objects and Scripts in Python

Use NETCONF Via SSH

Use RESTCONF with Cisco IOS XE Software