# CCNP course contents:

Cisco Certified Network Professional (CCNP) validates the ability to plan, implement, verify and troubleshoot local and wide-area enterprise networks and work collaboratively with specialists on advanced security, voice, wireless and video solutions. The CCNP certification is appropriate for those with at least one year of networking experience who are ready to advance their skills and work independently on complex network solutions. Those who achieve CCNP have demonstrated the skills required in enterprise roles such as network technician, support engineer, systems engineer or network engineer.

**CCNP certification has 3 exams as given below:**

| **CCNP Exams & Recommended Training** | |
|---|---|
| **Required Exam(s)** | **Recommended Training** |
| 642-902 ROUTE | Implementing Cisco IP Routing (ROUTE) |
| 642-813 SWITCH | Implementing Cisco IP Switched Networks (SWITCH) |
| 642-832 TSHOOT | Troubleshooting and Maintaining Cisco IP Networks (TSHOOT) |

## CCNP Prerequisites:

The CCNP certification as outlined above is designed for candidates with at least one year of networking experience. Examinees that pass the CCNP exam will have proven that they possess the demonstrated skills required in enterprise roles such as network technician, support engineer, systems engineer, network engineer and network administrator.

Prerequisites for candidates that wish to take the CCNP exam include the Cisco Certified Network Associate - Routing & Switching Certification (CCNA).

## Course for Routing paper 642-902:

- Scalable internetwork requirements
- Enhanced Interior Gateway Routing Protocol (EIGRP) operation and support
- Border Gateway Protocol (BGP) operation and support
- BGP, Open Shortest Path First (OSPF), and EIGRP configuration
- Standard and extended access lists
- Route redistribution
- Routing update traffic
- Policy-based routing
- IP private addresses
- Internet Protocol version 4 (IPv4) and Internet Protocol version 6 (IPv6)
- Layer 3 path control

## Course for Switching paper 642-813:

- Local Area Network (LAN) media types
- Basic switch configurations
- Virtual Local Area Network (VLAN) implementation
- Routing between VLANs
- Multilayer switching
- Hot Standby Routing Protocol (HSRP) configuration
- Virtual Router Redundancy Protocol (VRRP) configuration
- Multicasting
- Basic Quality of Service (QoS)
- Switch security
- Network access restriction
- Campus switched networks
- Wireless access
- Voice over Internet Protocol (VOIP)

## Course for Troubleshooting paper 642-832:

- Troubleshooting EIGRP, OSPF, BGP
- Troubleshooting routing redistribution solutions
- Troubleshooting Ipv6 routing
- Troubleshooting Ipv6 and Ipv4 interoperability
- Troubleshooting switch-to-switch connectivity for the VLAN based solution
- Troubleshooting general switch security
- Troubleshooting switch virtual interfaces (SVIs)
- Troubleshooting Wireless
- Troubleshooting a VoIP support solution
- Troubleshooting layer 3 security