



Cisco Certified Network Associate (CCNA)

Who should attend this course?

The course has been designed for students at the beginning of their career in Cisco technologies. Recent graduates, current help desk and support employees and those students looking for a career change. Knowledge of TCP/IP, DNS and basic networking would be beneficial, however this course will commence with a review of the required basic knowledge.

Duration

5 days (full time)
9:00am – 5:30pm Monday to Friday

Course Content

The course consists of plenty of practical exercises that build your understanding and experience of configuring, managing and maintaining Cisco routers and switches in different settings. The course will also fully prepare you for the 640-802 CCNA examination.

Students who successfully pass the 640-802 exams will be awarded a CCNA from Cisco and will have completed the requirement to undertake further certifications at Professional and Expert level.

Day 1

- Introduction to computer networking concepts
- The TCP/IP and OSI Networking Models
- Data Link Layer Fundamentals:
 - Ethernet LANs
 - MAC and LLC Sub layer
 - Introduction to protocols working at Data link layer
- Fundamentals of WANs
- Fundamentals of IP
 - IP addressing
 - Disadvantages of Ipv4 and comparison between IPv4 and IPv6
- Fundamentals of TCP and UDP
- LAN Cabling, Standards and Typologies

Day 2

- Operating Cisco Routers
- Operating Cisco LAN Switches
- Cisco LAN Switching Basics
 - Need of Switching.
 - Comparison between Bridging, switching.
 - Concept of VLANs
 - STP
 - RSTP
 - Per VLAN STP
 - PVST+
 - CST
 - Trunking
 - IEEE 802.1q
 - ISL
 - Configuring Cisco LAN Switches
 - Configuring STP, VLAN Trunking
 - Troubleshooting

Day 3

- Introduction to Dynamic Routing Protocols
 - Concept of Static Routing and Dynamic Routing.
 - Classification of Routing Protocols.
 - Introduction to Exterior routing protocols.
- RIP, EIGRP and Static Route Concepts and Configuration
 - Route Redistribution understanding and concepts

Day 4

- OSPF and EIGRP Concepts and Configuration
 - Configuring Router for OSPF.
 - Configuring Virtual Links
 - Configuring Multiple Areas
 - Configuring Route Redistribution to understand ASBR.
- Advanced Routing Protocol Techniques
 - Understanding Route Filtering
 - Understanding Route Optimization
- Case Study

Day 5

- Remote Access Technologies
 - Understanding and Configuring PPP.
 - Understanding and Configuring Frame Relay.
 - Configuring various authentication protocols.
- IP Access Control List Security
 - IP standard and extended access lists.
 - Understanding distribute lists and comparison with access lists.

- Wireless Networks.
 - Various encryption technologies.
 - Authentication protocols.
- VPN
 - Types of VPN.
 - Protocols used in VPN.
 - Why VPN?
- IPv6
 - Problems with IPv4.
 - Advantages of IPv6.
 - Compatibility with IPv4.
 - Future of IPv6
- Doubt session
- Some practice questions.

For more information on all our courses please visit our website www.inspiredtraining.com.au and if you need to speak to one of our advisers email enquiries@inspiredtraining.com.au