

CCNA Syllabus

Course Details:

- Duration: 32 Days (3 Hours Daily).
- Certificates: CCNA.
- Exams: 200-120.



The CCNA Certification

- The CCNA certification (Cisco Certified Network Associate) indicates a foundation in and apprentice knowledge of networking.
- CCNA certified professionals can install, configure, and operate LAN, WAN, and dial access services for small networks (100 nodes or fewer).
- CCNA certified professionals can best utilize the use of any of these protocols: IP, IGRP, Serial, Frame Relay, IP RIP, VLANs, RIP, Ethernet, and Access Lists.
- CCNA certified professionals will earn a basic networks administration skills

CCNA Composite Exam: The 200-120 CCNAX is the composite exam associated with the Cisco CCNA Routing and Switching certification. Candidates can prepare for this exam by taking the Interconnecting Cisco Networking Devices: Accelerated (CCNAX) v2 course. This exam tests a candidate's knowledge and skills required to install, operate, and troubleshoot a small to medium size enterprise branch network. The topics include all the areas covered under ICND 1 and ICND2 Exams.

CTS is proud to be the first test center in Jordan starts teaching the new CCNA exam after retiring the old 640-802 exam in addition to implementing all of the course LABs in a physical Environment.

**CCNA Syllabus
Semester 1**

Day 1

- Introduction to networking
- Network Types
- Network Topologies
- Networking media
- MAC vs. IP addresses

Day 2

- Cable Types (Twister Pair / Coaxial / Fiber)
- Cabling LAB (Straight / Cross / Rollover)
- Testing connectivity
- Network Technologies

Day 3

- OSI Model
- TCP/IP Model
- TCP/IP Application & Transport layers
- Data Encapsulation

Day 4

- Network Devices
 - Repeaters / Hubs / Bridges / Switches
 - Routers / Core Switches / Broadband Routers
 - Wireless Access Points / VPN Routers / Modems

Day 5

- Introduction To Addressing
- IP Addressing-Classfull (LAB)
- IANA Classes

Day 6

- Classless Addressing
- CIDR (Classless InterDomain Routing)
- Subnetting with VLSM (LAB)
- Supernetting (LAB)

Day 7

- Semester 1 Skills Evaluation Exam (Multiple Choice).

**CCNA Syllabus
Semester 2****Day 1**

- Introduction to Routers
- Routers Components & Models
- Routers Startup
- Routers Command line Interface

Day 2

- Routers Basic configuration Commands
- Backing up & Restoring the "Cisco IOS" & "Configuration File"
- Adding Host Names to the "Host tables"
- Basic Configuration (LAB)

Day 3

- DHCP "Dynamic Host Configuration Protocol"
- Configuring DHCP (LAB)
- Cisco Discovery Protocol (CDP)
- Telnet (LAB)
- Password Recovery (LAB)

Day 4

- IP Routing
- Static Routing
 - Configuring a Flat Network (LAB)
 - Configuring a Looped Network (LAB)
- Administrative Distances / Permemnant Option
- Default Routing

Day 5

- Introduction to Dynamic Routing.
- Routing Protocol Basics
- RIP "Routing Information Protocol"
- Configuring RIP (LAB)

Day 7

- Semester 2 Skills Evaluation Exam (Physical LAB Exam + Multiple Choice).

**CCNA Syllabus
Semester 3****Day 1**

- EIGRP
- EIGRP Characteristics.
- EIGRP Metrics
- Configuring EIGRP (LAB)

Day 2

- OSPF
- OSPF Characteristics
- OSPF Areas and Autonomous Systems
- Configuring OSPF (LAB)

Day 3

- Perimeter , Firewall, and Internal Routes
- Access Control Lists-Standard
- Standard ACL's (LAB)

Day 4

- Access Control Lists-Extended
- Extended ACL's (LAB)
- Access Control Lists-Named
- Named ACL's (LAB)

Day 5

- Introduction to IPv6
- IPv6 addressing and expressions
- How IPv6 works on the Internetwork
- IPv6 Routing Protocols
- Migrating to IPv6
- Configuring IPv6 (LAB)
- OSPF v3

Day 6

- Introduction to Wireless Technology
- Cisco Unified Wireless Solution
- Configuring our wireless Internetwork

Day 7

Semester 3 Skills Evaluation Exam (Physical LAB Exam + Multiple Choice)

CCNA Syllabus
Semester 4**Day 1**

- Introduction to WANs
- WAN Protocols (PPP / HDLC) , Terms and Components.
- WAN Technologies (Metro Ethernet / VSAT / 3G / 4G / T1 / E1)
- WAN Technologies (ISDN / DSL / Frame Relay / Cable / VPN)
- Implementing and troubleshooting PPPoE (LAB)

Day 2

- NAT (Network Address Translation)
- Static / Dynamic / Overloading NAT
- Configuring NAT (LAB)

Day 3

- Frame Relay / Encapsulation
- Configuring Frame Relay (Point-to-Point / Multipoint) (LAB)

Day 4

- Introduction To Switches & Switches Models
- STP "Spanning Tree Protocol"
- BPDU / STP Root Bridge Elections
- RSTP / PVSTP / Etherchannels
- Basic Switches Configuration Commands (LAB)
- Sticky MAC / Limitation / Violation Modes

Day 5

- VLANs "Virtual LANs"
- VLAN Types (Static / Dynamic)
- VTP (VLAN Trunking Protocol) / Native VLAN
- DTP (Dynamic Trunking Protocol) / Autonegotiation
- Configuring VLANs / VLAN Trunking (LAB)

Day 6

- CEF (Cisco Express Forwarding)
- Configuring SVI (Switch Virtual Interfaces)
- Router Redundancy (HSRP / VRRP / GLBP)
- Configuring and Verify Syslog
- Describe SNMP v2 & v3

Day 7

- Final Evaluation Exam (Multiple Choice + Physical Open LAB)