Cisco CCST Networking (100-150)

This entry-level Cisco Certified Support Technician (CCST) Networking training prepares network technicians to understand and speak about fundamental networking concepts, including devices, protocols, and media. This course helps prepare you for the CCST Networking exam by explaining all the essentials of modern networking environments: from the devices and hardware they operate on to the software and applications that optimize and troubleshoot them.

CBT Nuggets course material →

STUDY PLAN

WEEK 1

The Building Blocks of Networking — 162 min.

What is Networking?	6
Network Addressing	7
The TCP/IP Model	11
Fragmentation and the TCP 3-Way Handshake	9
Sockets and Ports	5
OSI Model	10
The OSI Model In Action	7
Validation	5

Network Data Attributes and Network Topologies

Introduction	1
Bandwidth, Throughput and Goodput	13
Delay, Latency, RTT and Jitter	9
Measuring Network Performance With iPerf	9
Other Network Testing Tools	11
Network Topologies	10
Validation	4

Cloud Services and Common Network Protocols

Introduction	1
Cloud Services	7
Cloud Models	11
Remote/Hybrid Work	8
File Transfer Protocols	6
HTTP/S and DHCP	12

WEEK 2

151 min.

Domain Name System (DNS)	12
ICMP and NTP	9
Validation	5

IPv4 Addresses and NAT

Introduction	1
Types of Network Communication	8
Binary and IP Addresses	12
IP Address Versions, Types and Classes	16
IPv4 In Action	5
Network Address Translation (NAT)	11
Validation	6

IPv4 Subnetting Concepts

Introduction	1
Subnetting Concepts	8
Subnet Classes and Slider Notations	6
Determining Network Size	10
Subnetting In Action	10
Variable Length Subnet Masks (VLSM)	14
VLSM Practice Scenarios	10
Subnetting Tables and Calculators	7

WEEK 3

153 min.

Validation	14

Hexadecimal and IPv6

Introduction	1
What Is Hexadecimal	3
Introducing IPv6	10
IPv6 Address Types	9
IPv6 In Action	4
IPv6 Subnetting	10
Validation	4

Electronic Communications and Ethernet

Introduction	1
Electronic Communications	8
Interference, Plenum and Direct-Bury	9
Collision Domains, Ethernet and MTUs	8
Bus, Ring and Star Topologies	7
Hubs and Switches	9
Validation	4

Wired Media Types and Connectors

Introduction	1
Attenuation and Dispersion	5
Coaxial Cable	7
Twisted Pair Cable	18
Fiber Optic Cable	17
Small Form-factor Pluggable (SFP)	4

WEEK 4

153 min.

Validation	6

Structured Ethernet Cabling

Introduction	1
Before We Get Started	1
Structured Cabling Layout	9
Network Cabling Tools	8
Data Drops Using Keystone Jacks	9
Patch Panels	5
Making An Ethernet Cable	8
Testing Network Cabling	2
Validation	5

Wifi, Cellular and IoT

Introduction	1
Radio Frequency (RF) Signals	12
The RF Spectrum	4
RF Interference, Behavior and Bandwidth	10
WiFi Standards and Equipment	15
Cellular and Satellite Technologies	10
Internet of Things (IoT)	6
Validation	4

Configure and Verify Network Connectivity

Introduction	1
Configure and Test Network Settings on Windows	19
Configure and Test Network Settings on Linux	10
Configure and Test Network Settings on Mac OS	7

WEEK 5 **152 min.**

Configure and Test Network Settings on Android	3
Configure and Test Network Settings on Apple iOS	3
Validation	5

Physical Network Infrastructure

Introduction	1
Cisco Device Indicator Lights	6
Components In A Network Rack	6
Network Rack Power	8
Network Rack Cabling	3
Network Rack Airflow	8
Network Device Ports	11
Network Diagrams	4
Validation	3

IPv6 DHCP and Switching

Introduction	1
Host IP Addresses and IPv6 SLAAC	7
IPv6 DHCP	5
Layer 2 Switching	7
MAC Address Filtering	4
Virtual LANs (VLANs)	7
Spanning Tree Protocol (STP)	8
Validation	4

Routing Fundamentals

Introduction	1
Role Of the Default Gateway	6
Routing Tables	12
Additional Router Features	8

WEEK 6

164 min.

Network Management and Documentation

Troubleshooting Networks

Accessing and Running Commands On Cisco Devices

WEEK 7

151 min.

The Basics Of Firewalls

Foundational Security Concepts

Configuring Wireless Networks

Introduction	1
Wireless Access Point Placement	10

WEEK 8

38 min.

Wireless Security Choices	8
SSIDs and Guest Networks	6
Configuring A Home WiFi Router	20
Validation	4

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