Cisco CCNA

(200-301)

STUDY PLAN

WEEK 1

Introduction to CCNA (200-301) with Jeremy — 2 min.

1	Introduction to CCNA (200-301) with Jeremy	2 min.

Introduction to CCNA (200-301) with Keith — 8 min.

2	Introduction to CCNA (200-301) with Keith	8 min.

Introduction to CCNA (200-301) with NetworkChuck — 2 min.

3	Introduction to CCNA (200-301) with NetworkChuck	2 min.

Build a Physical Cisco Lab Environment — 68 min.

4	Introduction to Build a Physical Cisco Lab Environment	1 min.
5	Why Use a Physical Lab?	9 min.
6	Understanding Common Switch Models	7 min.
7	Understanding Common Router Models	6 min.
8	Understanding Device Memory Requirements	6 min.
9	Understanding Common Modules	13 min.
10	Performing Password Recovery	14 min.
11	Building a CCNA Lab Environment	12 min.

Set Up Packet Tracer for Hands-On Cisco Practice — 37 min.

12	Why You'll Benefit from Packet Tracer	4 min.
13	Getting and Installing Packet Tracer	2 min.
14	Configuring Your First PT Network	15 min.
15	Getting Physical	3 min.
16	Visualizing Network Traffic with Simple PDUs	13 min.

WEEK 2

Set Up Packet Tracer for Hands-On Cisco Practice — 33 min.

17	Visualizing Network Traffic with Complex PDUs	9 min.
18	Replicating a Physical Rack	10 min.
19	Using Packet Tracer on your Tablet	4 min.
20	Final Challenge and Review	10 min.

Describe Network Functions and Equipment — 47 min.

21	Introduction to Describe Network Functions and Equipment	1 min.
22	Primary Switch Functions	10 min.
23	Primary Wireless Access Point Functions	9 min.
24	Primary Router Functions	10 min.
25	Assembling the Network Pieces	10 min.
26	Review of Describe Network Functions and Equipment	7 min.

Explain Network Communication Using the OSI and TCP/IP Model — 56 min.

27	Introduction to Explain Network Communication with the OSI Model	1 min.
28	Why We Have Two Models	4 min.
29	Application Layers	6 min.
30	Transport Layer	10 min.
31	Network Layer	5 min.
32	Data Link and Physical Layer	9 min.
33	Describing Network Communication Using the OSI and TCP/IP Models	15 min.
34	Review of Explain Network Communication with the OSI Model	6 min.

WEEK 3

Describe Common Network Architectures — 72 min.

35	Introduction to Describe Common Network Architectures	1 min.
36	Two-Tier Architecture	11 min.
37	Three-Tier Architecture	5 min.
38	Spine-Leaf Architecture	11 min.
39	WAN Architecture	12 min.
40	SOHO Architecture	8 min.
41	On-Premise vs. Cloud Architecture	4 min.
42	Building a Network Architecture	13 min.
43	Review of Describe Common Network Architectures	7 min.

Discern Copper and Fiber Optic Network Cable Characteristics — 55 min.

44	Introduction Connect Networks with Copper and Fiber Optic Cable	1 min.
45	Copper Cable	9 min.
46	Two Styles of Fiber	6 min.
47	Fiber Port Types	9 min.
48	Part 1: Connecting the CCNA Lab	8 min.
49	Part 2: Connecting the CCNA Lab	22 min.

WEEK 4

Connect and Navigate Cisco Internetwork Operating System (IOS) 88 min.

50	Introduction to Connect and Navigate Cisco Internetwork Operating System (IOS)	1 min.
51	Methods of Managing Cisco Devices	9 min.
52	Configuring a Console Connection in Windows	7 min.
53	Configuring a Console Connection in MacOS	6 min.
54	Answering the Epic Post-Boot Question	8 min.
55	Using Cisco IOS Navigation Commands	11 min.
56	Modes that Made Cisco Famous	11 min.
57	Interface Connections and Numbering	6 min.
58	Preparing for the Initial Configuration	24 min.
59	Review of Connect and Navigate Cisco Internetwork Operating System (IOS)	5 min.

Create a Base Configuration for Cisco Devices 33 min.

60	Introduction to Create a Base Configuration for Cisco Devices	1 min.
61	Configuring Device Identification (Hostname and Banner)	8 min.
62	Configuring Foundation Security and Passwords (Console, VTY, Enable Sec)	15 min.
63	Configuring IP Addresses and Enabling Interfaces	9 min.

WEEK 5

Create a Base Configuration for Cisco Devices 72 min.

64	Initial Tuning and Configuration Management	14 min.
65	Telnet and SSH Implementation	15 min.
66	Ensuring Proper Base Configurations	38 min.
67	Review of Create a Base Configuration for Cisco Devices	5 min.

Create a Base Configuration for Cisco Devices Hands-On Labs 49 min.

68	Introduction to Your Virtual Hands-on Labs	1 min.
69	Basic IOS Navigation Lab	14 min.
70	Hostnames and MOTD Banners Lab	7 min.
71	Configuring and Verifying Interfaces and IP Addresses Lab	10 min.
72	Configure DNS and Router Interfaces	10 min.
73	Cisco Router and Switch CLI Review Lab	4 min.
74	Review of Hands-On Lab	3 min.

WEEK 6

Wireshark Fundamentals: Capturing, Viewing, and Filtering Data 64 min.

75	Introducing Wireshark Fundamentals	1 min.
76	Performing an Initial Capture	10 min.
77	The OSI Model in Wireshark	11 min.
78	Learning from Idle Network Data	11 min.

79	Practical Wireshark: ARP	6	min.
80	Practical Wireshark: Rogue DHCP	8	min.
81	Practical Wireshark: DNS	7	min.
82	Practical Wireshark: Telnet	5	min.
83	Reviewing Wireshark Fundamentals	5	min.

Describe and Analyze TCP and UDP Communication — 46 min.

84	Introduction to Describe and Analyze TCP and UDP Communication	1	min.
85	How TCP Starts a Session	15	min.
86	How TCP Sends Data (TCP Windowing)	9	min.
87	How TCP Ends a Session	8	min.
88	How UDP Communicates	10	min.
89	Review of Describe and Analyze TCP and UDP Communication	3	min.

WEEK 7

Configure Windows, MAC, or Linux for Network Access — 33 min.

90	Introduction to Configure Windows, MAC, or Linux for Network Access	1	min.
91	Configuring and Testing Windows Network Access	10	min.
92	Configuring and Testing MacOS Network Access	6	min.
93	Configuring and Testing Ubuntu Linux Network Access	14	min.
94	Review of Configure Windows, MAC, or Linux for Network Access	2	min.

Describe Network Switch Functions and How to Locate Network Devices — 54 min.

95	Introduction to Describe Network Switch Functions and How to Locate Network Devices	1	min.
96	Connecting Devices to a Switch	7	min.
97	Switches Learning MAC Addresses	12	min.
98	Viewing and Filtering MAC Address Tables	8	min.
99	Locating Devices on a Network Switch	17	min.
100	Locating Devices Lab	7	min.
101	Review of Describe Network Switch Functions and How to Locate Network Devices	2	min.

Diagnose Interface Status, Errors, and Cabling Issues on a Cisco Switch — 53 min.

102	Introduction to Diagnose Interface Status, Errors, and Cabling Issues on a Cisco Switch	1	min.
103	Common Copper and Fiber Physical Issues	12	min.
104	The Quick Way to See Interface Status	6	min.
105	Examining Speed and Duplex Mismatches	9	min.
106	Deep-Dive Into Interface Counters	21	min.
107	Review of Diagnose Interface Status, Errors, and Cabling Issues on a Cisco Switch	4	min.

WEEK 8

Describe Power over Ethernet (PoE) Capabilities and Standards — 29 min.

108	Introduction to Describe Power over Ethernet (PoE) Capabilities and Standards	1 min.
109	How Power over Ethernet (PoE) Works	10 min.
110	Exploring PoE Standards	9 min.
111	PoE in Action on a Cisco Switch	6 min.
112	Review of Describe Power over Ethernet (PoE) Capabilities and Standards	3 min.

Explain IP Addressing and Subnetting Concepts — 60 min.

113	Introduction to Describe Power over Ethernet (PoE) Capabilities and Standards	1 min.
114		13 min.
115	How Power over Ethernet (PoE) Works	14 min.
116	Exploring PoE Standards	18 min.
117	PoE in Action on a Cisco Switch	11 min.
118	Review of Describe Power over Ethernet (PoE) Capabilities and Standards	3 min.

Convert Decimal to Binary and Back — 23 min.

119	Introduction to Converting from Decimal to Binary and Back	1 min.
120	Process of Binary Conversion	10 min.
121	Practicing Decimal to Binary	8 min.
122	Practicing Binary to Decimal	4 min.

WEEK 9

Perform Subnetting Based on Network Requirements — 65 min.

123	Introduction to Perform Subnetting Based on Network Requirements	1 min.
124	Subnetting Class C Networks Based on Network Requirements	20 min.
125	Subnetting Class B Networks Based on Network Requirements	15 min.
126	Subnetting Class A Networks Based on Network Requirements	10 min.
127	Troublesome Networks	6 min.
128	Review of Perform Subnetting Based on Network Requirements	13 min.

Perform Subnetting Based on Host Requirements — 37 min.

129	Introduction to Perform Subnetting Based on Host Requirements	1 min.
130	Subnetting Class C Networks Based on Host Requirements	7 min.
131	Subnetting Class B Networks Based on Host Requirements	4 min.
132	Subnetting Class A Networks Based on Host Requirements	8 min.
133	Troublesome Hosts	6 min.
134	Additional Examples of Subnetting Based on Host Requirements	11 min.

Reverse Engineering Subnets and Using VLSM — 58 min.

135	Introduction to Reverse Engineering Subnets and VLSM	1 min.
136	Doing Subnetting Backwards	7 min.
137	Practical Reverse Engineering Examples	13 min.
138	What is VLSM?	14 min.
139	VLSM Scenario	23 min.

WEEK 10

Describe IPv6 Core Addressing Concepts — 86 min.

140	Introduction to Describe IPv6 Core Addressing Concepts	1 min.
141	Comparing IPv4 and IPv6	9 min.
142	Binary, Decimal, and Hex	12 min.
143	Making IPv6 Addresses Shorter	7 min.
144	Types of IPv6 Addresses	21 min.
145	Designing IPv6 Addressing	13 min.
146	Configuring IPv6 Addressing	10 min.
147	Configure IPv6 Addressing Lab	7 min.
148	Review of Describe IPv6 Core Addressing Concepts	6 min.

Design a Basic Wireless Network — 47 min.

149	Introduction to Converting from Decimal to Binary and Back	1 min.
150	Process of Binary Conversion	16 min.
151	Practicing Decimal to Binary	13 min.
152	Practicing Binary to Decimal	12 min.
153	Review of Describe Wireless Frequency and Design Fundamentals	5 min.

WEEK 11

Explain VLANs and Configure VLANs on a Single Switch — 86 min.

154	Introduction to Explain VLAN Concepts and Configure VLANs on a Single Switch	1 min.
155	How VLANs Changed the World	15 min.
156	Routing Between VLANs	12 min.
157	Configuring VLANs on a Single Switch	22 min.
158	Configuring a Router on a Stick	20 min.
159	Configuring VLANs on a Single Switch Lab	13 min.
160	Review of Explain VLAN Concepts and Configure VLANs on a Single Switch	3 min.

Configure Trunking Between Switches, WAPs, and Servers — 35 min.

161	Introduction to Configure Trunking Between Switches,	1 min.
162	WAPs, Servers	18 min.
163	Understanding DTP and the Native VLAN	8 min.
164	Configuring Trunks the Right Way Weird and Wacky World of VTP	8 min.

WEEK 12

Configure Trunking Between Switches, WAPs, and Servers — 80 min.

165	Configuring VTP	12 min.
166	Limiting or Adding VLANs to Trunks	8 min.
167	Connecting Trunks to Servers, WAPs, and More	13 min.
168	Deploying VLSM in a VLAN Network	17 min.
169	Configuring VLANs, Trunking, and Routing Lab	23 min.
170	Review of Configure Trunking Between Switches, WAPs, Servers, and More	7 min.

Create a Network Diagram with Cisco CDP and LLDP — 32 min.

171	Introduction to Create a Network Diagram with Cisco CDP and LLDP	1 min.
172	What is CDP and LLDP?	7 min.
173	Configuring and Tuning CDP and LLDP	9 min.
174	Creating a Network Diagram using CDP and LLDP	8 min.
175	Creating a Network Diagram with CDP Lab	5 min.
176	Review of Create a Network Diagram with Cisco CDP and LLDP	2 min.

WEEK 13

Design and Configure a Rapid Spanning Tree Protocol (STP) Network — 100 min.

177	Introduction to Design and Configure a Rapid Spanning Tree Protocol (STP) Network	1 min.
178	What Does STP Do?	13 min.
179	Understanding STP Standards	10 min.
180	How the Root Bridge is Elected	16 min.
181	How to Determine Your STP Topology	23 min.
182	Configuring Basic STP and Verifying Results	15 min.
183	Identifying and Configuring STP Ports and Root Bridge Lab	17 min.
184	Review of Design and Configure a Rapid Spanning Tree Protocol (STP) Network	5 min.

Increase Network Capacity Using EtherChannel — 50 min.

185	Introduction to Increase Network Capacity Using EtherChannel	1 min.
186	What is EtherChannel?	13 min.
187	Configuring and Verifying EtherChannel	23 min.
188	Modifying EtherChannel Load Distribution	10 min.
189	Review of Increase Network Capacity Using EtherChannel	3 min.

WEEK 14

Configure a Basic Cisco Wireless Network using the WLC GUI — 36 min.

190	Introduction to Configure a Basic Cisco Wireless Network using the WLC GUI	1 min.
191	Cisco WLC Puzzle Pieces	9 min.
192	Accessing a Cisco WLC for the First Time	10 min.
193	Base Level WLC Configuration	16 min.
194	Review of Configure a Basic Cisco Wireless Network using the WLC GUI	3 min.

Explain End-To-End IP Communications — 57 min.

195	Introducing End-To-End IP Communications	3 min.
196	TCP/IP Protocol Stack Review	9 min.
197	Routers and Multilayer Switches	8 min.
198	Predicting the Correct L2 and L3 Addresses	12 min.
199	Logical and Physical Topologies Lab	9 min.
200	Identifying and Correcting a Layer 2 Path	10 min.
201	Topology and Lab Strategy	5 min.
202	Reviewing End-To-End IP Communications	1 min.

Configure and Verify Cisco IPv4 Static Routes — 21 min.

203	Introducing IPv4 Static Routing	1 min.
204	How a Router Learns IP Routes	7 min.
205	Adding Directly Connected IPv4 Routes	13 min.

WEEK 15

Configure and Verify Cisco IPv4 Static Routes — 121 min.

206	Planning Static Network Routes	11 min.
207	Configuring Static IPv4 Network Routes	12 min.
208	Adding Static Host Routes	10 min.
209	Implementing Static Default Routes	7 min.
210	Floating Static Routes Overview	9 min.
211	Configuring and Verifying Static Floating Routes	11 min.
212	Static Routes using an Outbound Interface	8 min.
213	IPv4 Static Routes Review	9 min.
214	IPv4 Static Route Case Study and Lab	13 min.
215	Review of Configure and Verify Cisco IPv4 Static Routes	12 min.
216	Introducing IPv6 Static Routes	1 min.
217	IPv6 Static Route Lab Topology	5 min.
218	Adding IPv6 Directly Connected Routes	13 min.

WEEK 16

Configure and Verify Cisco IPv4 Static Routes — 52 min.

219	Planning Static IPv6 Network and Default Routes	7 min.
220	Configuring Static IPv6 Default and Network Routes	11 min.
221	Floating Static IPv6 Host Routes	11 min.
222	IPv6 Static Routes Review	6 min.
223	IPv6 Static Route Case Study and Lab	15 min.
224	Review of Configure and Verify Cisco IPv6 Static Routes	2 min.

Describe Cisco Dynamic IPv4 Routing with OSPF — 72 min.

225	Introducing OSPF Concepts	1 min.
226	Dynamic vs. Static Routing	11 min.
227	OSPF Path Cost	9 min.
228	OSPF Router ID (RID)	8 min.
229	OSPF Areas	6 min.
230	Wildcard Masks and Network Statements	8 min.
231	OSPF Wildcards on Clean Octet Boundaries	10 min.
232	OSPF Wildcards for Subnets	11 min.
233	DR and BDRs on Broadcast Networks	8 min.

WEEK 17

Describe Cisco Dynamic IPv4 Routing with OSPF — 26 min.

234	Verifying OSPF Adjacencies	8 min.
235	OSPF LSAs and DRs	6 min.
236	OSPF and Point-to-Point Networks	5 min.
237	Review of Describe Cisco Dynamic IPv4 Routing with OSPF	6 min.
238	OSPF Concepts Wrap-Up	1 min.

Implement Cisco Dynamic IPv4 Routing with OSPF — 87 min.

239	Introduction to Implement Cisco Dynamic IPv4 Routing with OSPF	1 min.
240	Lab Topology Introduction	4 min.
241	Implementing Loopbacks for OSPF	10 min.
242	Implementing OSPF with Exact Network Statements	5 min.
243	Adding more OSPF Routers	8 min.
244	OSPF Link Cost Calculation	11 min.
245	OSPF Neighbor Adjacencies	9 min.
246	Default Routes in OSPF Overview	5 min.
247	Implementing a Default Route in OSPF	8 min.
248	Real World OSPF Case Study and Lab	24 min.
249	Review of Implement Cisco Dynamic IPv4 Routing with OSPF	2 min.

WEEK 18

Configure and Verify First Hop Redundancy Protocols (FHRP) — 46 min.

250	Introducing First Hop Redundancy Protocols (FHRPs)	1 min.
251	FHRP (First Hop Redundancy Protocols) Overview	6 min.
252	Hot Standby Router Protocol (HSRP)	9 min.
253	Virtual Router Redundancy Protocol (VRRP)	7 min.
254	Gateway Load Balancing Protocol (GLBP)	12 min.
255	Applying your FHRP Skills in a Production Network	10 min.
256	Review of Configure and Verify First Hop Redundancy Protocols (FHRP)	1 min.

Interpret and Describe a Cisco IP Routing Table — 58 min.

257	Introduction to Interpret and Describe a Cisco IP Routing Table	1 min. 4 min.
258	Routing Protocol Codes	4 min.
259	Network Prefix and Mask	6 min.
260	Next Hop	8 min.
261	Administrative Distance (AD)	5 min.

262	The Routing Table Metric	5	min.
263	Gateway of Last Resort	5	min.
264	Using a Routing Table in a Production Network	14	min.
265	Review of Interpret and Describe a Cisco IP Routing Table	6	min.

Predict a Cisco Router's IP Forwarding Decisions — 34 min.

266	Introduction to Predict a Cisco Router's IP Forwarding Decisions	1	min.
267	Winning Routes of a Router's Table (Concepts)	5	min.
268	Preferring a Better Route Due to AD Lab	8	min.
269	Choosing a Route Based on the Metric or Cost	6	min.
270	Concepts of Using the Longest Match in the Routing Table	3	min.
271	Longest Match Routing Lab	11	min.

WEEK 19

Predict a Cisco Router's IP Forwarding Decisions — 47 min.

272	Identifying Which Routes Include a Specific IP	13	min.
273	Route or Drop: The Prediction Game	14	min.
274	Case Study and Lab: Predicting the Router's Decisions	15	min.
275	Review of Predict a Cisco Router's IP Forwarding Decisions	5	min.

Configure and Verify Cisco's Router on a Stick — 31 min.

276	Introducing a Router on a Stick	1	min.
277	Router on a Stick Concepts	6	min.
278	Implementing Router on a Stick	10	min.
279	Using Router on a Stick in Production	12	min.
280	Review of Configure and Verify Cisco's Router on a Stick	2	min.

Troubleshoot an IP Network — 69 min.

281	Introducing the Troubleshooting Labs	1	min.
282	Troubleshooting Tips	4	min.
283	Troubleshooting Topology	4	min.
284	Trouble Ticket 1 with Guest Jeff Kish	19	min.
285	Trouble Ticket 2 with Guest Knox Hutchinson	12	min.
286	Trouble Ticket 3 with Guest Bart Castle	16	min.
287	Trouble Ticket 4 with Keith Barker	13	min.

WEEK 20

Cisco NAT Concepts and Base Configurations: Static and Overload — 100 min.

288	Introducing Cisco NAT Concepts and Base Configurations	1	min.
289	Using Different NAT Strategies	22	min.
290	Defining NAT Terminology	10	min.
291	Configuring NAT Overload	27	min.
292	Configuring Static NAT	19	min.
293	Configuring and Verifying Cisco NAT Lab	15	min.
294	Reviewing Cisco NAT Concepts and Base Configurations	6	min.

Configure and Verify Cisco NTP — 21 min.

295	Introduction to Configure and Verify Cisco NTP	1	min.
296	What is NTP?	6	min.
297	Configuring an NTP Client	6	min.
298	Configuring an NTP Server	6	min.
299	Review of Configure and Verify Cisco NTP	2	min.

WEEK 21

Configure DHCP Server and Relay Functions — 48 min.

300	Introduction to Configure DHCP Server and Relay Functions	1 min.
301	DHCP Server, Client, and Relay	11 min.
302	Configuring a Cisco DHCP Server	16 min.
303	Configuring DHCP Relay in a Cisco Network	10 min.
304	DHCP Lab	7 min.
305	Review of Configure DHCP Server and Relay Functions	3 min.

Explain Common Network Services: SNMP, Syslog, QoS, and TFTP-FTP — 54 min.

306	Introduction to Configure DHCP Server and Relay Functions	1 min.
307	DHCP Server, Client, and Relay	18 min.
308	Configuring a Cisco DHCP Server	9 min.
309	Configuring DHCP Relay in a Cisco Network	17 min.
310	DHCP Lab	6 min.
311	Review of Configure DHCP Server and Relay Functions	3 min.

Define Key Concepts Regarding Network Security — 9 min.

312	Introduction to Define Key Concepts Regarding Network Security	1 min.
313	Security Overview and CIA	3 min.
314	Vulnerabilities	5 min.

WEEK 22

Define Key Concepts Regarding Network Security — 21 min.

315	Exploits	7 min.
316	Threats and Risk	4 min.
317	Mitigation Techniques and Countermeasures	8 min.
318	Review of Define Key Concepts Regarding Network Security	2 min.

Describe Security Program Elements — 14 min.

319	Introducing Security Program Elements	1 min.
320	Polices as Part of a Security Program	4 min.
321	User Awareness and Training	4 min.
322	Physical Controls and Review	5 min.

Describe Elements of Secure Password Policies — 24 min.

323	Introduction to Describe Elements of Secure Password Policies	1 min.
324	Password Policies	6 min.
325	Password Managers	5 min.
326	Multi-Factor Authentication (MFA)	9 min.
327	Review of Describe Elements of Secure Password Policies	3 min.

Configure Cisco Device Access Control Using Local Passwords — 40 min.

328	Introducing Local Passwords	1 min.
329	Default Behavior for Console Access	7 min.
330	Default Behavior for Aux Access	8 min.
331	Passwords for VTY Login	8 min.
332	Storing Local Passwords	6 min.
333	Type 9 Local Passwords	2 min.
334	Local Usernames and Passwords	5 min.
335	Configure Cisco Device Access Control Using Local Passwords Review	3 min.

Summarize and Differentiate AAA Concepts — 40 min.

336	Introducing AAA	1 min.
337	AAA Overview	6 min.
338	Building Blocks of AAA	6 min.
339	AAA New-Model Framework	5 min.
340	Commands to Implement AAA	5 min.
341	Implementing and Verifying AAA	13 min.
342	Summarize and Differentiate AAA Concepts Review	4 min.

WEEK 23

Apply and Verify Cisco Access Control Lists — 82 min.

343	Introducing Access Control Lists (ACLs) for Packet Filtering	1 min.
344	ACL Concepts	6 min.
345	Standard ACLs Concepts	6 min.
346	Standard ACLs Lab	9 min.
347	Wildcard Masks Concepts	5 min.
348	Wildcard Masks Lab	5 min.
349	Wildcard Masks for Subnets Lab	6 min.
350	Extended ACLs Concepts	4 min.
351	Extended ACLs Lab	10 min.
352	Using Named Extended ACLs	13 min.
353	ACL Production Case Study and Lab	13 min.
354	Review of Apply and Verify Cisco Access Control Lists	4 min.

Configure and Verify Cisco Port Security — 40 min.

355	Introducing Port Security	1 min.
356	Understanding Port Security and Why we Need It	6 min.
357	Port Security Defaults	4 min.
358	Implementing Port Security on Layer 2 Interface	6 min.
359	Customizing Port Security	9 min.
360	Configuring Auto Errdisable Recovery	7 min.
361	Applying Port Security Skills in Production	5 min.
362	Review of Configure and Verify Cisco Port Security	2 min.

WEEK 24

Configure and Verify Cisco DHCP Snooping — 41 min.

363	Introducing DHCP Snooping	1 min.
364	Why is DHCP Snooping Needed	4 min.
365	The Recipe for DHCP Snooping	5 min.
366	Building and Implementing DHCP Snooping in PT	11 min.
367	Adding Source Guard to a Switch	5 min.
368	Applying DHCP Snooping in Production	12 min.
369	Review of Configure and Verify Cisco DHCP Snooping	3 min.

Configure and Verify Cisco Dynamic ARP Inspection 32 min.

370	Introducing Dynamic ARP Inspection (DAI)	1 min.
371	Why is DAI Needed	3 min.
372	The Recipe and Commands for DAI	3 min.
373	Implementing DAI	5 min.
374	ARP Access Lists for Non-DHCP Devices	6 min.
375	Additional DAI Options and Features	6 min.
376	Applying DAI to the Production Network	6 min.
377	Review of Configure and Verify Cisco Dynamic ARP Inspection	2 min.

Describe Remote Access and Site-to-Site VPNs 20 min.

378	Introducing VPNs	1 min.
379	Virtual Private Network (VPN) Overview	5 min.
380	Building Blocks for Cryptography	8 min.
381	Site-To-Site VPN Concepts	6 min.

WEEK 25

Describe Remote Access and Site-to-Site VPNs 26 min.

382	Verifying Site-To-Site Encryption Lab	9 min.
383	Remote-Access VPN Concepts	6 min.
384	Remote-Access VPN Client Examples	8 min.
385	Review of Describe Remote Access and Site-To-Site VPNs	3 min.

Describe, Configure, and Verify Wireless Security protocols 37 min.

386	Introduction to Describe, Configure, and Verify Wireless Security protocols	1 min.
387	Wireless Security Protocol Options	6 min.
388	Options for Controlling Wi-Fi Networks	4 min.
389	Implementing WPA2 PSK on a SOHO Network	6 min.
390	Planning WPA2 on a Controller-Based Wi-Fi Network	4 min.
391	Implementing WPA2 on a Controller-based Wi-Fi Network	14 min.
392	Review of Describe, Configure, and Verify Wireless Security Protocols	2 min.

What is Network Automation? 36 min.

393	Introducing Network Automation	1 min.
394	What is Network Automation?	5 min.
395	Automating Network Device Deployment	11 min.
396	Automating Network Device Backup, Monitoring, and Data Collection	10 min.
397	Automating Network Troubleshooting Lab	8 min.
398	Let's Keep Automating	1 min.

Use REST APIs and JSON 26 min.

399	You are a Network Developer	1 min.
400	API vs. SNMP vs. CLI	10 min.
401	What is a REST API?	7 min.
402	Navigating a REST API	8 min.

WEEK 26

Use REST APIs and JSON 57 min.

403	HTTP Verbs	11 min.
404	Programming 101: Data	14 min.
405	Programming Playground Lab	6 min.
406	JSON, YAML, or XML?	6 min.
407	Interpreting JSON	11 min.
408	REST API Lab	8 min.
409	Becoming a Network Developer	1 min.

Understand Software Defined Networking (SDN) Architectures 56 min.

410	The Next Era of Networking is Here	1 min.
411	What is a Network Controller Anyway?	9 min.
412	The Underlay	3 min.
413	The Overlay	5 min.
414	The Fabric	7 min.
415	SD-Access Fabric - Today’s Campus Reimagined	7 min.
416	Exploring DNA Center	6 min.
417	Intermission: Get to Know Postman	8 min.
418	Automating DNA Center's Northbound API	9 min.
419	Summarizing SDN	1 min.

Network Automation Tools: Ansible, Puppet, and Chef 11 min.

420	Introducing Ansible, Puppet, and Chef	1 min.
421	Configuration Management with DevOps Tools	10 min.