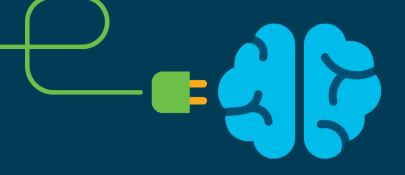
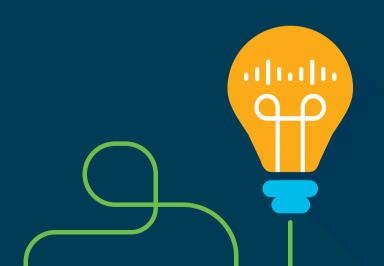
CISCO: Academy
Dhaka International University

Cisco Academy, ID 400050635



**CCNA 7.0** 

**Product Overview** 



Updated Feb 2020



- Enhanced Course Design
- Accelerate Path to Job Readiness
- Improved Outcomes
- Lab Equipment
- Logistics and Timing

### Version 7 Will Be The Best Yet!

Enhanced Course Design



Accelerated Path to Job Readiness



Improved Outcomes



### **CCNA Curriculum**

#### **Curriculum Overview**

The courses in the CCNA Version 7.0 curriculum help students develop a comprehensive foundation for designing, securing, operating, and troubleshooting modern computer networks, on the scale from small business networks to enterprise networks, with an emphasis on hands-on learning and essential career skills like problem solving and collaboration.

### Career Prep

By the end of the CCNA course series, students gain practical, hands-on experience preparing them for the CCNA certification exam and career-ready skills for associate-level roles in the Information & Communication Technologies (ICT) industry.

### **Learning Components**

- · Series of 3 courses:
  - 1. Introduction to Networks (ITN)
  - 2. Switching, Routing, and Wireless Essentials (SRWE)
  - 3. Enterprise Networking, Security, and Automation (ENSA)
- Hands-on labs and Cisco Packet Tracer network simulation activities
- · Videos, activities, and quizzes reinforce learning
- Exams to measure learning outcomes
- Assessment features to ensure exam security and integrity

#### Features





Target Audience: Students interested in pursuing an IT-related career

Prerequisites: None. Vocational students often take IT Essentials or equivalent knowledge prior to CCNA

Course Delivery: Instructor-led

Estimated Time to Complete: 200 hours

Recommended Next Course: CCNP Enterprise Core, CCNA CyberOps, DevNet Associate, Python or Emerging Tech

Workshops

### **CCNA:** Introduction to Networks

#### Course Overview

The first course in the CCNA curriculum introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks - including IP addressing and Ethernet fundamentals.

#### **Benefits**

By the end of the course, students can build simple local area networks (LAN) that integrate IP addressing schemes, foundational network security, and perform basic configurations for routers and switches.

### Learning Components

- 17 modules
- 24 hands-on labs
- 31 Cisco Packet Tracer activities
- 36 videos
- · 10 syntax checkers
- · 13 interactive activities

- 64 CYU quizzes
- 17 module exams
- · 6 module group exams
- 1 final exam



### **Features**

**Target Audience**: Secondary vocational students, 2-year and 4-year college students in Networking or Engineering

Prerequisites: None

**Instructor Training Required**: Yes

Languages: English

Course Delivery: Instructor-led

Course Recognitions: Certificate of Completion, Letter of Merit, Digital

Badge

Estimated Time to Complete: 70 hours

**Recommended Next Course**: CCNA: Switching, Routing, and Wireless

Essentials

# CCNA: Switching, Routing, and Wireless Essentials

#### Course Overview

The second course in the CCNA curriculum focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLAN) and security concepts.

#### **Benefits**

Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN.

### Learning Components

- 16 modules
- 14 hands-on labs
- 31 Cisco Packet Tracer activities
- 15 videos
- 19 syntax checkers
- · 1 interactive activity

- · 36 CYU quizzes
- 16 module exams
- 5 module group exams
- 1 final exam



### **Features**

**Target Audience**: Secondary vocational students, 2-year and 4-year college students in Networking or Engineering

Prerequisites: None

**Instructor Training Required**: Yes

Languages: English

Course Delivery: Instructor-led

Course Recognitions: Certificate of Completion, Letter of Merit, Digital

Badge

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA: Enterprise Networking, Security,

and Automation

# CCNA: Enterprise Networking, Security, and Automation

#### Course Overview

The third CCNA course describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks – including wide area network (WAN) technologies & quality of service (QoS) mechanisms for secure remote access, along with software-defined networking, virtualization, & automation concepts supporting network digitization.

#### **Benefits**

Students gain skills to configure and troubleshoot enterprise networks, and learn to identify and protect against cybersecurity threats. They are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation.

### Learning Components

- 14 modules
- 12 hands-on labs
- 29 Cisco Packet Tracer activities
- · 32 videos
- 13 syntax checkers
- · 2 interactive activities

- 53 CYU quizzes
- 14 module exams
- 5 module group exams
- 1 final exam
- 1 practice exam for CCNA certification exam



### **Features**

Target Audience: 2-year and 4-year college students in Networking or

Engineering

Prerequisites: None

**Instructor Training Required**: Yes

Languages: English

Course Delivery: Instructor-led

Course Recognitions: Certificate of Completion, Letter of Merit, Digital

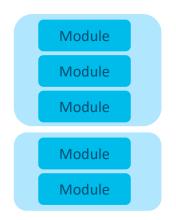
Badge

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNP Enterprise Core



## **Enhanced Course Design**



### **Modular Design**

- ✓ Self-contained units
- ✓ Targeted learning of skills



### **Learning Effectiveness**

- ✓ Better student engagement
- ✓ Designed for skills progression



#### Step 4 - Verify Default Gateway

12.5.7

If there is no detailed route on the router or if the host is configured with the wrong a between two endpoints in different networks does not work.

The figure illustrates how PC1 uses R1 as its default gateway, Similarly, R1 uses R2 resort. If a host needs access to resources beyond the local network, the default gal gateway is the first router on the path to destinations beyond the local network.

### **User Experience**

- Improved student view and navigation
- Easier instructor content management



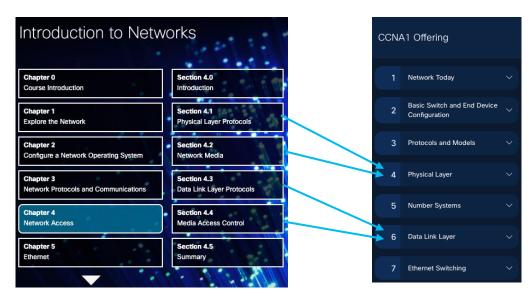
### **Enhanced Course Design**

### Introducing modules for better organization

- ✓ Topics are grouped together
- ✓ Find content more easily

A **module** is an integrated unit of learning that targets a common set of competencies or skills.

Module size depends on the competency and number of topics.



Example: CCNA: ITN (Version 6) Chapter 4 is re-organized to

CCNA: ITN (Version 7) Modules 4 and 6.



## **Enhanced Course Design**

### **Accessibility Enhancements**



## Redesigned User Interface

- ✓ Developed for Web Content Accessibility Guidelines 2.1
- ✓ New sidebar navigation
- ✓ Mobile-friendly
- ✓ Performance enhancements
- ✓ Improved color contrast



# **Enhancements for Screen Readers**

- Media descriptions and transcripts throughout
- Descriptions & transcripts tied directly to user interface
- Conversion to HTML- screen reader can read tables, command windows, Syntax Checkers



### **Better Keyboard Accessibility**

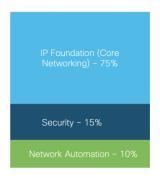
- √ 'Skip to Content' sidebar navigation
- ✓ All activities are now keyboard accessible
- New, accessible header with all user functions



## Build Critical Skills for Today - and Tomorrow

# **Certification Alignment**





- As of Feb 2020, Cisco has a new, consolidated CCNA certification evolved for the New Network
- NetAcad curriculum has evolved to stay aligned
- In CCNA 7.0, students gain critical networking skills, plus foundations for security and automation
- CCNA 7.0 practice exams and activities prepare learners for the new exam



### **CCNA 7.0 Course Outlines**

Intro t	o Netwo	rks (ITN)

**Networking Today** 

Basic Switch and End Device

Configuration

**Protocol Models** 

Physical Layer

Number Systems

Data Link Layer

**Ethernet Switching** 

**Network Layer** 

**Address Resolution** 

**Basic Router Configuration** 

**IPv4** Addressing

**IPv6 Addressing** 

**ICMP** 

**Transport Layer** 

**Application Layer** 

Network Security Fundamentals

**Build a Small Network** 

Switching, Routing, and Wireless Essentials (SRWE)

**Basic Device Configuration** 

**Switching Concepts** 

**VLANs** 

Inter-VLAN Routing

**STP** 

Etherchannel

DHCPv4

SLAAC and DHCPv6 Concepts

FHRP Concepts

**LAN Security Concepts** 

**Switch Security Configuration** 

**WLAN Concepts** 

WLAN Configuration

**Routing Concepts** 

**IP Static Routing** 

Troubleshoot Static and Default Routes

Enterprise Networking, Security and Automation (ENSA)

Single-Area OSPFv2 Concepts

Single-Area OSPFv2 Configuration

**WAN Concepts** 

**Network Security Concepts** 

**ACL Concepts** 

ACLs for IPv4 Configuration

NAT for IPv4

VPN and IPsec Concepts

**QoS Concepts** 

**Network Management** 

**Network Design** 

Network Troubleshooting

**Network Virtualization** 

**Network Automation** 

Complementary Options

CCNP Enterprise (ENCOR, ENARSI)

or

CCNA Security / CCNA
CyberOps

or

**DevNet Associate** 

or

Python / ETWs

or lead with

**IT Essentials** 

New/significantly changed content



## Accelerated Path to Job Readiness

# Module Objectives

Introduction to Networks (ITN)

	Module	Module Group Assessments	NEW!
Module 1	Networking Today		
Module 2	Basic Switch and End Device Configuration	<b>Basic Network Connectivity and Communications</b>	
Module 3	Protocol Models		
Module 4	Physical Layer		
Module 5	Number Systems	Ethernet Concepts	
Module 6	Data Link Layer	Ethernet Concepts	
Module 7	Ethernet Switching		
Module 8	Network Layer		
Module 9	Address Resolution	<b>Communicating Between Networks</b>	
Module 10	Basic Router Configuration		
Module 11	IPv4 Addressing		
Module 12	IPv6 Addressing	IP Addressing	
Module 13	ICMP		
Module 14	Transport Layer	Notwork Application Communications	
Module 15	Application Layer	Network Application Communications	
Module 16	Network Security Fundamentals	Duilding and Country a Could Natural	
Module 17	Build a Small Network	Building and Securing a Small Network	



## Accelerated Path to Job Readiness

# Module Objectives

Switching, Routing, and Wireless Essentials (SRWE)

	Module	Module Group Assessments
Module 1	Basic Device Configuration	
Module 2	Switching Concepts	Switching Concents and VI ANS
Module 3	VLANs	Switching Concepts and VLANS
Module 4	Inter-VLAN Routing	
Module 5	STP	Redundant Networks
Module 6	Etherchannel	Redundant Networks
Module 7	DHCPv4	
Module 8	SLAAC and DHCPv6 Concepts	Available and Reliable Networks
Module 9	FHRP Concepts	
Module 10	LAN Security Concepts	
Module 11	Switch Security Configuration	12 Consider and MI AND
Module 12	WLAN Concepts	L2 Security and WLANs
Module 13	WLAN Configuration	
Module 14	Routing Concepts	
Module 15	IP Static Routing	Routing Concepts and Configuration
Module 16	Troubleshoot Static and Default Routes	



## Accelerated Path to Job Readiness

# Module Objectives

Enterprise
Networking,
Security, and
Automation
(ENSA)

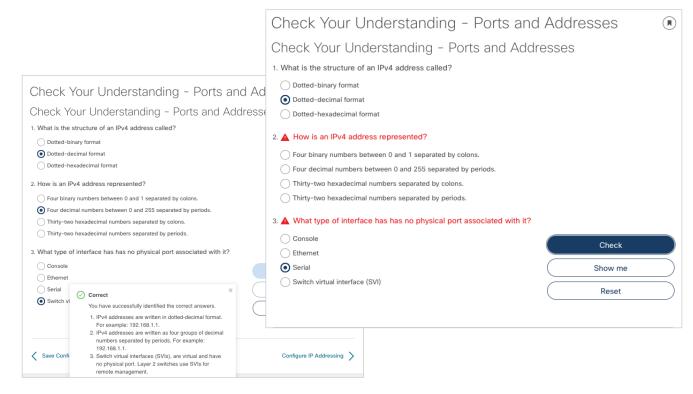
	Module	Module Group Assessments
Module 1	Single-Area OSPFv2 Concepts	OSPF Concepts and Configuration
Module 2	Single-Area OSPFv2 Configuration	OSFF Concepts and Configuration
Module 3	Network Security Concepts	
Module 4	ACLs Concepts	Network Security
Module 5	ACLS for IPv4 Configuration	Network Security
Module 6	NAT for IPv4	
Module 7	WAN Concepts	WAN
Module 8	VPN and IPsec Concepts	WAIN
Module 9	QoS Concepts	
Module 10	Network Management	Optimize, Monitor, and Troubleshoot Networks
Module 11	Network Design	Optimize, Monitor, and Houbleshoot Networks
Module 12	Network Troubleshooting	
Module 13	Network Virtualization	Network Virtualization and Automation
Module 14	Network Automation	Network virtualization and Automation



## Improved Outcomes

# **Check Your Understanding**

- Complete a topic with self-assessment
- Gives students the opportunity validate and retain critical knowledge
- Use feedback as review

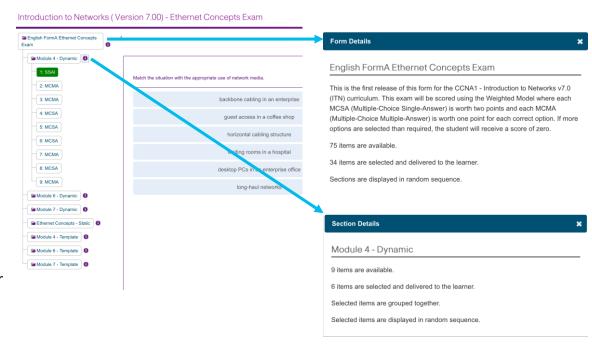




## Improved Outcomes

### Dynamic Forms - Administer unique exams to each of your students

- Exams are dynamically generated from pool of questions, maintaining exam integrity and validity
- Available for Module Group exams and Final course exam
- Form and Section Details indicate total items available and selected from the pool for students.
- Module Group exam items, delivered or not, are available for preview with the assessment viewer

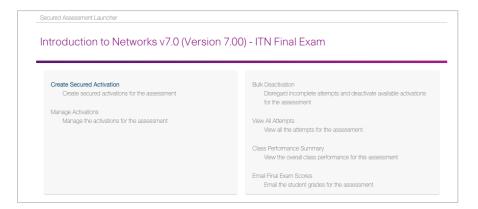


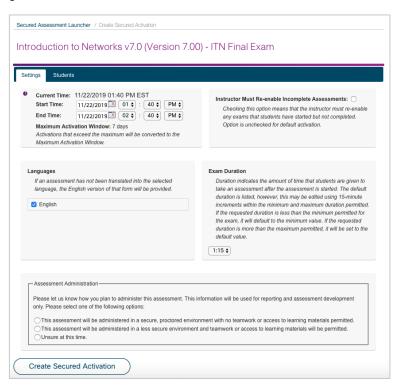


### Secured Activation increases final exam security

#### **New Assessment Launcher**

- Final exams remain secure until administered by instructor
- Replaces the Assessment Viewer
- For security & integrity, questions are not visible







## Improved Outcomes

### Secured Activation provides useful insights on class performance

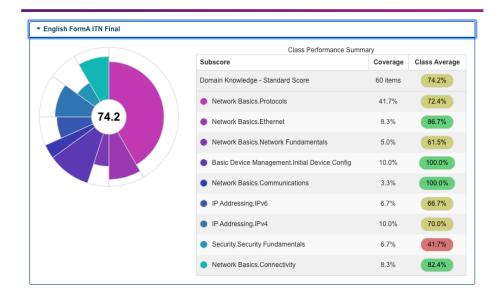
#### **Domain Level Reporting**

- New Class Performance Summary report for instructors
- Replaces the Student Performance Summary
- See how your students are performing in each domain based on objectives of the modules and course

#### ITNv7 Final Exam

Secured Assessment Launcher / Class Performance Summary

Introduction to Networks (Version 7.00) - ITNv7 Final Exam



### Formative and Summative Assessments guide learning at strategic points

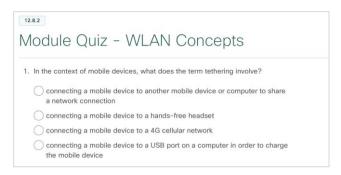
#### **Self-Assessments**

#### **Check Your Understanding**

- ✓ Multiple per module
- ✓ Correct/incorrect scoring and 'show me' option

#### **Module Quizzes**

- √ 1 per module
- ✓ Correct/incorrect scoring and 'show me' option



### Launched by Instructor

#### **Module Group Exams**

✓ Multiple per course

#### **Certification Practice Exams**

✓ 1 for ENSA course

#### **Final Exams**

√ 1 per course

	Module	Module Group Topics
Module 1	Single-Area OSPFv2 Concepts	OSPF Concepts and Configuration
Module 2	Single-Area OSPFv2 Configuration	OSPF Concepts and Configuration
Module 3	Network Security Concepts	
Module 4	ACLs Concepts	Network Security
Module 5	ACLS for IPv4 Configuration	Network Security
Module 6	NAT for IPv4	
Module 7	WAN Concepts	WAN
Module 8	VPN and IPsec Concepts	WAIN
Module 9	QoS Concepts	
Module 10	Network Management	Optimize, Monitor, and Troubleshoot
Module 11	Network Design	Networks
Module 12	Network Troubleshooting	
Module 13	Network Virtualization	Network Virtualization and Automation
Module 14	Network Automation	Network virtualization and Automation

# Lab Equipment

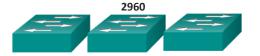




## CCNA 6.0 vs 7.0 – Lab Equipment



or 4321 or 4331



Server



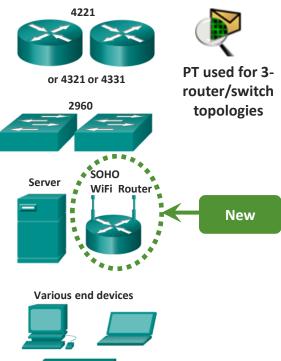
Various end devices



#### For CCNA 7.0:

- Serial ports not required
- Packet Tracer 7.3.0 or higher required









## SOHO Wi-Fi Router is Back in CCNA 7.0

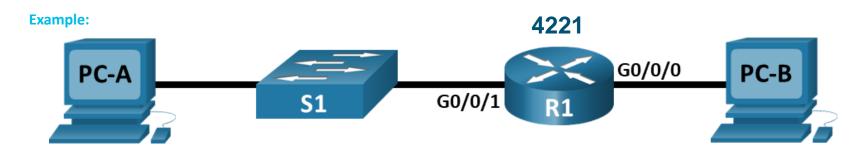


- 1 wireless router (generic brand) with WPA2 support
- Configure a Home Network with Wireless
- Configure WLAN with WPA2 Encryption
- GUI



## Can I Teach CCNA v7 with 1941/2901 Routers?

- Yes, you can use the 1941/2901 Routers, but please note:
  - CCNA 7.0 Hands-on labs and Skills Assessments (SA) were written using the Cisco 4221 routers
  - Some modifications for router interface names will be required
  - Most CCNA 7.0 commands should work, but full regression testing for the 1941 and 2901 was not done



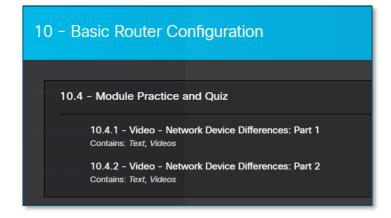
1941/2901 - Interface names G0/0 & G0/1



### Network Device Differences Videos

- Curriculum team created 2
   videos available to students and
   instructors about Network
   Device Differences mostly
   available ports
- Available in the IPD Week course on the CCNA 7.0 page for instructors
- Student access CCNA: ITN
   Module 10 10.4.1 and 10.4.2

Topic	Session	Recording	Presentation
Network Devices These videos are included in	Network Device Differences Part 1 Overview		N/A
ITNv7 Chapter 10. Posted here for your convenience.	Network Device Differences Part 2 Configuration	•	N/A





# CCNA 7.0 Equipment List – ISR4K IOS-XE Image

Updated equipment list defines IOS-XE image requirements:

Equi	ipment L	ist (Option 1)		
			I should be ordered with IOS-XE Image with Payload Encryption: version for xxx), Cisco ISR 4200 Series IOS XE Universal	
j	Qty	Product Number	Description.	Notes
5	2	ISR4221/K9	Cisco ISR 4221 (2GE, 2NIM, 8G FLASH, 4G DRAM,IPB) See note above regarding IOS-XE image.	1,2
		MC COCCU-DATC I (IN		

• Cisco Commerce order tool has 3 tabs for IOS-XE options for ISR4k. First tab is for SD-WAN and should NOT be selected as this is not needed for labs and requires feature license. Second tab includes K9 images that are applicable.



# Logistics & Timing





# CCNA 7.0 Instructor Qualification Mapping

CCNA R&S 6 Course Current Qualification(s)	CCNA 7 Course Qualification(s) Earned	Materials to Review*
CCNA 1 (Intro to Networks)	CCNA 1 (Intro to Networks)	No additional
CCNA 1 (Intro to Networks) CCNA 2 (Routing & Switching Essentials)	CCNA 1 (Intro to Networks) CCNA 2 (Switching, Routing, and Wireless Essentials)	CCNA 2 (SRWE) 7
CCNA 1 (Intro to Networks) CCNA 2 (Routing & Switching Essentials) CCNA 3 (Scaling Networks)	CCNA 1 (Intro to Networks) CCNA 2 (Switching, Routing, and Wireless Essentials) CCNA 3 (Enterprise Networking, Security, and Automation)	CCNA3 (ENSA) 7 + Bridging Course
CCNA 1 (Intro to Networks) CCNA 2 (Routing & Switching Essentials) CCNA 3 (Scaling Networks) CCNA 4 (Connecting Networks)	CCNA 1 (Intro to Networks) CCNA 2 (Switching, Routing, and Wireless Essentials) CCNA 3 (Enterprise Networking, Security, and Automation)	Bridging Course
CCNA 2 (Routing & Switching Essentials)	CCNA 2 (Switching, Routing, and Wireless Essentials)	CCNA2 (SRWE) 7
CCNA 3 (Scaling Networks)	CCNA 3 (Enterprise Networking, Security, and Automation)	CCNA3 (ENSA) 7
CCNA 4 (Connecting Networks)	CCNA 3 (Enterprise Networking, Security, and Automation)	CCNA3 (ENSA) 7



### **CCNA 7.0 Translation Plan**

Course	Language *
	Spanish
	Portuguese
CCNA	French
Version 7	Chinese
	Russian
	Arabic

<sup>\*</sup> Translated curricula will be released as available and the CCNA Bridging course will be prioritized in each language.



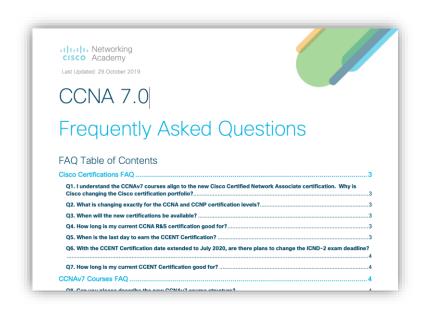
## CCNA Version 6 End of Life

Course	Language *	Last Class Start Date
	English	Jan 31, 2021
	Spanish	
CCNA Version 6 courses (ITN, RS, ScaN, CN)	Portuguese	End-of-life dates for translated languages will be announced
	French	when each language is released.
	Chinese	Dates will be a minimum of 1
	Russian	<ul><li><u>year</u> after Version 7 course</li><li>resources are available.</li></ul>
	Arabic	. cood. coo are available.



### CCNA 7.0 Course Resources

- Scope and Sequence
- Release Notes
- Instructor Planning Guides (includes Instructor PPTs)
- Instructor Lab Source Files
- Instructor Packet Tracer Source Files
- Packet Tracer Activity Source Files
- Student Lab Source Files
- Student Packet Tracer Source Files
- Exam Design Documents
- PTSA Design Documents



#### Access Course Resource Pages through NetAcad.com

https://www.netacad.com/portal/resources/course-resources/ccna-itn https://www.netacad.com/portal/resources/course-resources/ccna-srwe https://www.netacad.com/portal/resources/course-resources/ccna-ensa https://www.netacad.com/portal/resources/course-resources/ccna-bridging



