

IT Essentials 7.0

Course Overview

July 2019





IT Essentials 7.0

- IT Essentials at NetAcad
- 7.0 Features & Benefits
- Logistics and Timing



IT Essentials at NetAcad

Foundational skills
required for entry
level IT jobs



Over 2.4 million
students have
participated globally

2.4M



Available in 21
languages



6 versions since it
was introduced 17
years ago

Version 7 Will Be The Best Yet!

Active Learning



Expanded Coverage



Improved Outcomes



IT Essentials 7

Course Overview

IT Essentials covers fundamental computer and career skills for entry-level IT jobs. Students apply skills and procedures to install, configure, and troubleshoot computers, mobile devices, and software.

Benefits

For students seeking career-oriented, entry-level hardware and software skills to prepare for technical support roles, this course aligns with the CompTIA A+ certification.

This course also serves as a foundation for CCNA-level courses.

Learning Components

- 14 chapters
- 83 hands-on labs and 128 interactive activities
- 75 videos
- 6 Cisco Packet Tracer activities
- 14 chapter exams, 2 checkpoint exam, 2 skills review exams, 2 practice final exams, 3 final exams, 2 skills-based assessment, and 7 practice exams for CompTIA A+ certification



Target Audience: Secondary and 2-year college vocational students

Prerequisites: None

Instructor Training Required: Yes

Languages: English

Course Delivery: Instructor-led

End of course documents: Certificate of Completion and Letter

Estimated Time to Complete: 70 hours

Recommended Next Course: CCNA R&S Introduction to Networks



Active Learning

A power supply includes several different connectors, as shown in here. These connectors are used to power various internal components such as the motherboard and disk drives. The connectors are "keyed" which means that they are designed to be inserted in only one orientation.

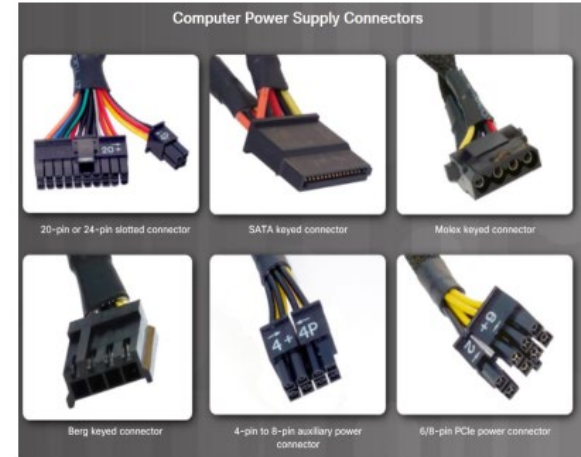
Use table format in PPT to display the following information. Make pdf available via button to user.

Connector	Description
A 20-pin or 24-pin slotted connector	<ul style="list-style-type: none">Connects to the motherboardThe 24-pin connector has two rows of 12 pins eachThe 20-pin connector has two rows of 10 pins each
SATA keyed connector	<ul style="list-style-type: none">Connects disk drivesConnector is wider and thinner than a Molex connector
Molex keyed connector	<ul style="list-style-type: none">Connects hard drives, optical drives, or other devices
Berg keyed connector	<ul style="list-style-type: none">Connect to legacy floppy drivesSmaller than a Molex connector
4-pin to 8-pin auxiliary power connector	<ul style="list-style-type: none">Connector has two rows of two to four pins and supplies power to different areas of the motherboardThe auxiliary power connector is the same shape as the main power connector but smaller
6/8-pin PCIe power connector	<ul style="list-style-type: none">Connector has two rows of three to four pins and supplies power to internal components



Connectors

A power supply includes several different connectors, as shown in here. These connectors are used to power various internal components such as the motherboard and disk drives. The connectors are "keyed" which means that they are designed to be inserted in only one orientation.



Click each image below of more information on common power supply connectors.

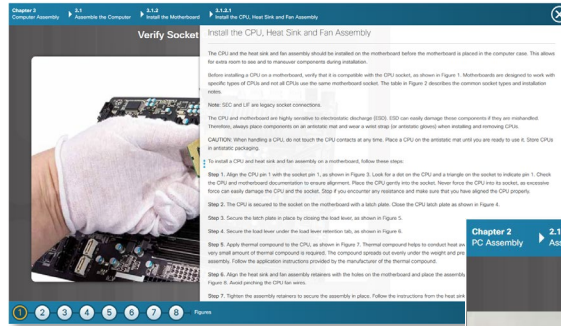




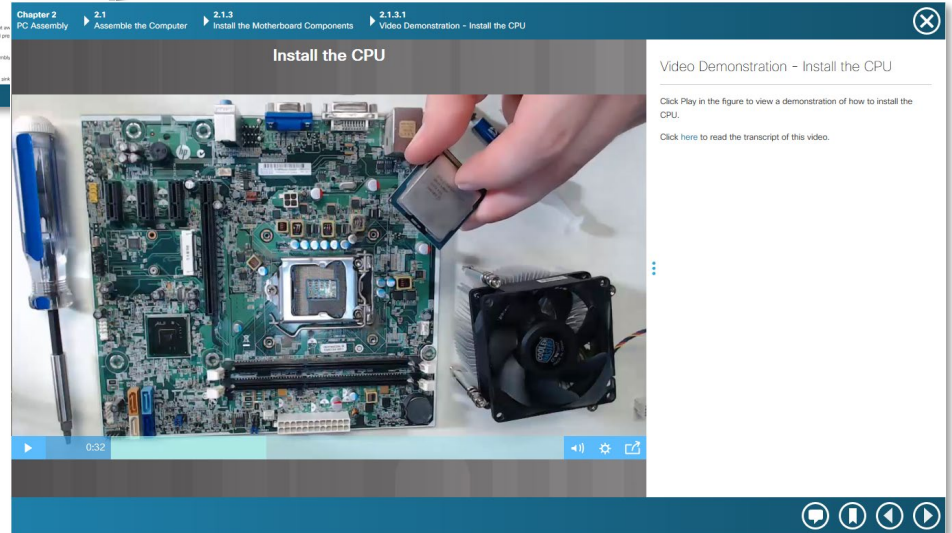
Active Learning

More Videos
Less Text

Version 6



Same Topic Version 7



- 4-5 minutes videos
- 75 videos



Active Learning

More Interactive Activities

Chapter 8 Printers > 8.1 Common Printer Features > 8.1.2 Printer Connections > 8.1.2.2 Check Your Understanding - Printer Connections

Check Your Understanding - Printer Connections

Instructions
Match each connector image to its corresponding port image. Click Check to see the answers. Click Reset to try again.

Connector Image	Port Image
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Chapter 1 Introduction to Personal Computer Hardware > 1.2 PC Components > 1.2.9 Input Devices > 1.2.9.5 Check Your Understanding: Input Devices

Check Your Understanding: Input Devices

1. What was the first type of input device?
 - Facial Recognition Scanners
 - Stylus
 - Mouse
 - Touch screen
 - Keyboard
 - Printer
2. What is the most recently invented input device in common use at the moment?
 - Facial Recognition Scanners
 - Stylus
 - Mouse
 - Touch screen
 - VR headset
 - Microphone
3. A company is building a new secure data center and wants to limit access to authorized personnel. What would be the best type of input device to use to limit access?
 - Biometric device
 - Keyboard
 - VR headset
 - Barcode scanner
 - Magstripe reader

125+ Self-Diagnostic Interactive Activities and Quizzes

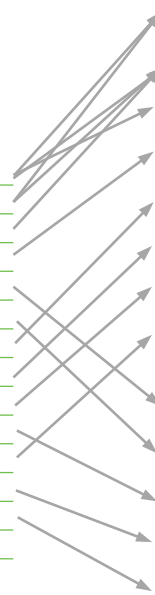


Expanded Coverage

Improved Flow

Version 6 Topics

1. Introduction to the Personal Computer System
2. Introduction to Lab Procedures and Tool Use
3. Computer Assembly
4. Overview of Preventive Maintenance
5. Windows Installation
6. Windows Configuration and Management
7. Networking Concepts
8. Applied Networking
9. Laptops and Mobile Devices
10. Mobile, Linux, and OS X Operating Systems
11. Printers
12. Security
13. The IT Professional
14. Advanced Troubleshooting



Version 7

1. Introduction to Personal Computer Hardware
2. PC Assembly
3. Advanced Computer Hardware
4. Preventive Maintenance and Troubleshooting
5. Networking Concepts
6. Applied Networking
7. Laptops and other Mobile Devices
8. Printers
9. Virtualization and Cloud Computing **NEW!**
10. Windows Installation
11. Windows Configuration
12. Mobile, Linux, and OS X Operating Systems
13. Security
14. The IT Professional



Expanded Coverage

Chapter Objectives

	Section	Goals/Objectives
Chapter 1	Introduction to Personal Computer Hardware	Select the appropriate computer components to build, repair, or upgrade personal computers.
Chapter 2	PC Assembly	Install components to build, repair, or upgrade personal computers.
Chapter 3	Advanced Computer Hardware	Install and configure components to upgrade a computer.
Chapter 4	Preventive Maintenance and Troubleshooting	Perform Troubleshooting on personal computers.
Chapter 5	Networking Concepts	Explain how computers communicate on a network.
Chapter 6	Applied Networking	Configure devices to communicate on a network.
Chapter 7	Laptops and Other Mobile Devices	Explain how to troubleshoot Laptops and other Mobile Devices.
Chapter 8	Printers	Install a printer to meet requirements.
Chapter 9	Virtualization and Cloud Computing	Describe virtualization and cloud computing.
Chapter 10	Windows Installation	Install Windows operating systems.
Chapter 11	Windows Configuration	Perform management and maintenance of Windows operating systems.
Chapter 12	Mobile, Linux, and OSX Operating Systems	Explain how to configure, secure, and troubleshoot mobile, Mac, and Linux operating systems.
Chapter 13	Security	Implement basic host, data, and network security.
Chapter 14	The IT Professional	Explain the roles and responsibilities of the IT Professional.

Coverage for
CompTIA A+
Core1 exam
topics

Coverage for
CompTIA A+
Core2 exam
topics



Expanded Coverage

New Topics

Hardware

- USB-C specifications
- Synchronization with cars
- SSO for mobile environment
- Managed and unmanaged switches
- Cloud-based network controllers
- IoT device installation and configuration
- RFID, Zigbee, Z-wave, 3G, 4G, 5G, and LTE
- IPv6 link-local addresses
- DHCP reservations
- Wireless Mesh Networks (WMN)
- QR scanners, VR headsets, and signature pads
- 3D printers and plastic filament
- Off-site email applications
- Cloud file storage services
- Virtual application streaming/cloud-based applications
- Virtual desktop
- Virtual NIC

Software

- Windows 10 (7, 8, and 8.1 remain)
- Chrome OS
- HFS and swap partition
- Control panels
- Credential Manager and Sync Center
- Active Directory Security guard
- Server locks, and USB locks
- MDM policies, port security, and certificates
- RADIUS and TACACS
- DoS, DDoS, and Rainbow table
- Change management best practices
- Disaster prevention and recovery
- Scripting basics
- Remote access technologies



Expanded Coverage

Certification Alignment

- IT Essentials 7.0 covers topics that are in the newest version of CompTIA's A+ Core1 and Core2 certification exams.
- Includes practice exams and activities to help the learners prepare for the new exams.
- Over time the course will also evolve to support other industry standards.



Improved Outcomes

What Do You Know Already?

- Open a topic with scenarios that introduce the concepts.
- Gives students the opportunity to see what do they know already.

The screenshot shows a learning module interface with a dark blue header and a light blue sidebar. The main content area is titled "What Do You Already Know? - Configure a CAx Workstation".

Chapter 3
Advanced Computer Hardware

3.4
Computer Configuration

3.4.2
Configurations for Specialized Computers

3.4.2.1
What Do You Already Know? - Configure a CAx Workstation

What Do You Already Know? - Configure a CAx Workstation

Instructions

What Do You Already Know? is a type of activity in which we ask you to simply take a guess! It is not meant to evaluate your knowledge. It is only meant to give you a head start thinking about different topics before they are presented in the course. You will receive additional information for the answers that you choose, so these activities also help you learn.

Read the scenario and then click each item on the left. For each item, choose the best type by clicking a type below the scenario.

Video Card

RAM

Storage

One type of a specialized computer is a workstation used to run computer-aided design (CAD) or computer-aided manufacturing (CAM) software.

A CAD or CAM (CAx) workstation is used to design products and control the manufacturing process. CAx workstations are used to create blueprints, design homes, cars, airplanes, computers, and many of the parts in the products that you use every day. A computer used to run CAx software must support the needs of the software and the I/O devices that the user needs to design and manufacture products. CAx software is often complex and requires robust hardware.

Try Again

You chose Basic. A basic video card might be able to run some CAx applications, but would be slow and most likely low resolution.

of a CAx workstation.

On-board **Basic** **High-end** **Powerful**

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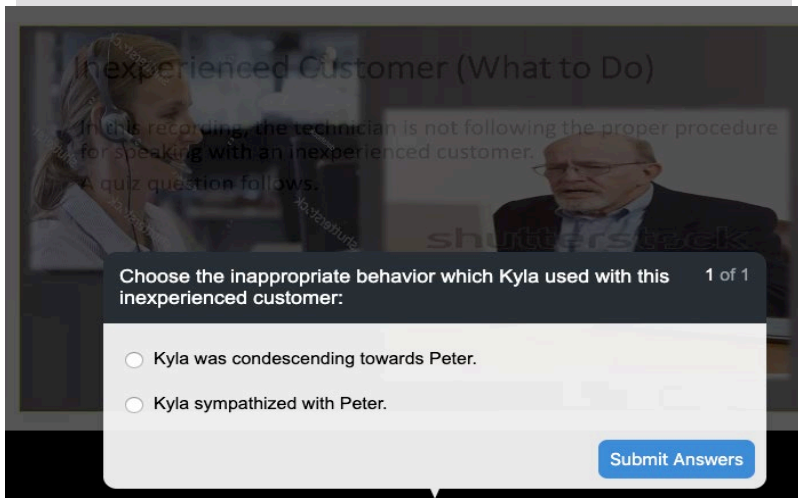
Improved Outcomes

Customer Service Scenarios (Video with Quiz)

Inexperienced Customer (What Not to Do)

In this recording, the technician is not following the proper procedure for speaking with an inexperienced customer.

A quiz question follows.



Inexperienced Customer (What to Do)

In this recording, the technician is not following the proper procedure for speaking with an inexperienced customer.

A quiz question follows.

Choose the inappropriate behavior which Kyla used with this inexperienced customer: 1 of 1

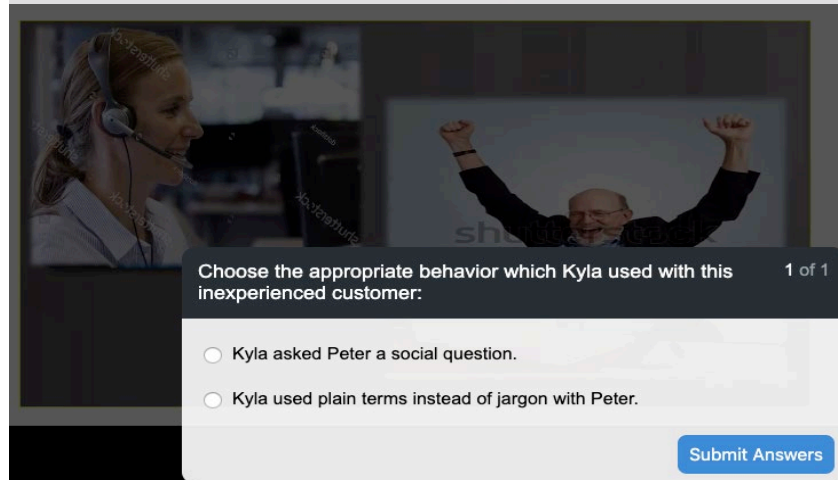
- Kyla was condescending towards Peter.
- Kyla sympathized with Peter.

Submit Answers

Inexperienced Customer (What to Do)

In this recording, the technician is not following the proper procedure for speaking with an inexperienced customer.

A quiz question follows.



Inexperienced Customer (What to Do)

In this recording, the technician is not following the proper procedure for speaking with an inexperienced customer.

A quiz question follows.

Choose the appropriate behavior which Kyla used with this inexperienced customer: 1 of 1

- Kyla asked Peter a social question.
- Kyla used plain terms instead of jargon with Peter.

Submit Answers



Improved Outcomes

Formative and Summative Assessments

- 14 Chapter Exams
- 2 Practice Course Final Exams NEW!
- 2 Course Final Exams NEW!
- 1 Comprehensive Final Exam
- 5 Certification Practice Checkpoints NEW!
- 2 Certification Practice Exams

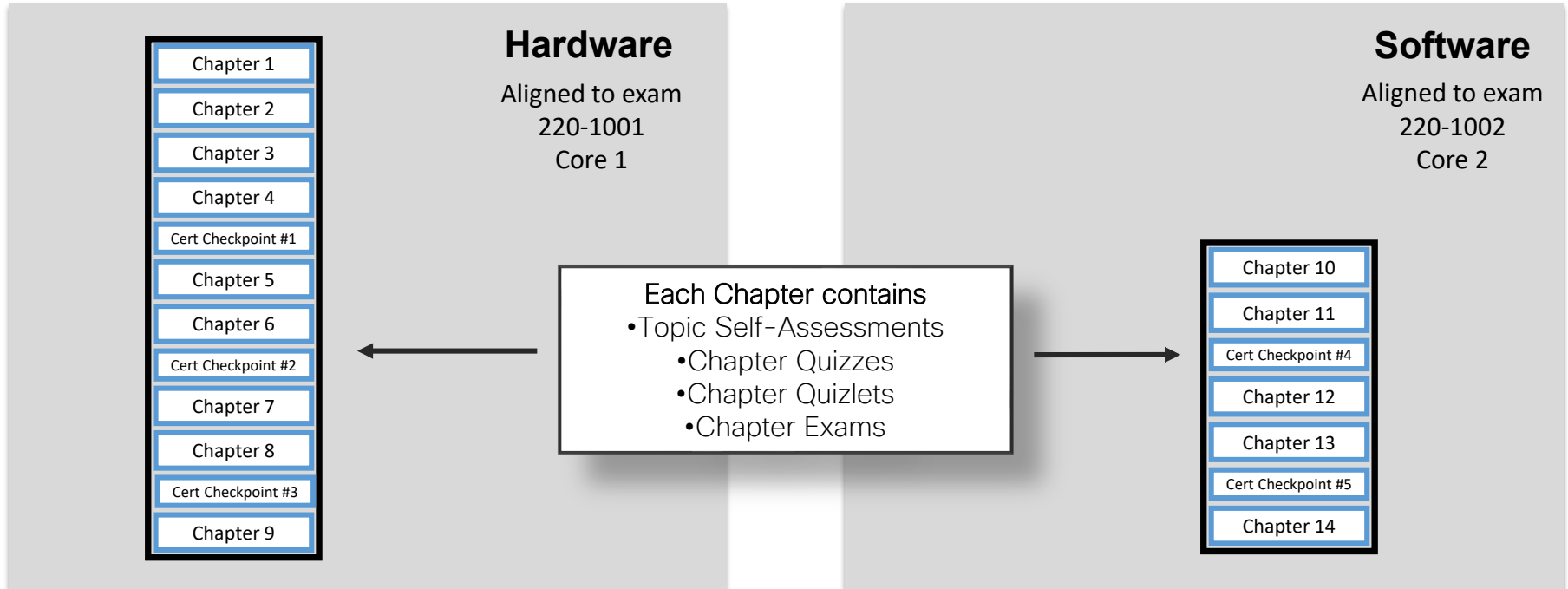


Over 1000 total questions available!



Improved Outcomes

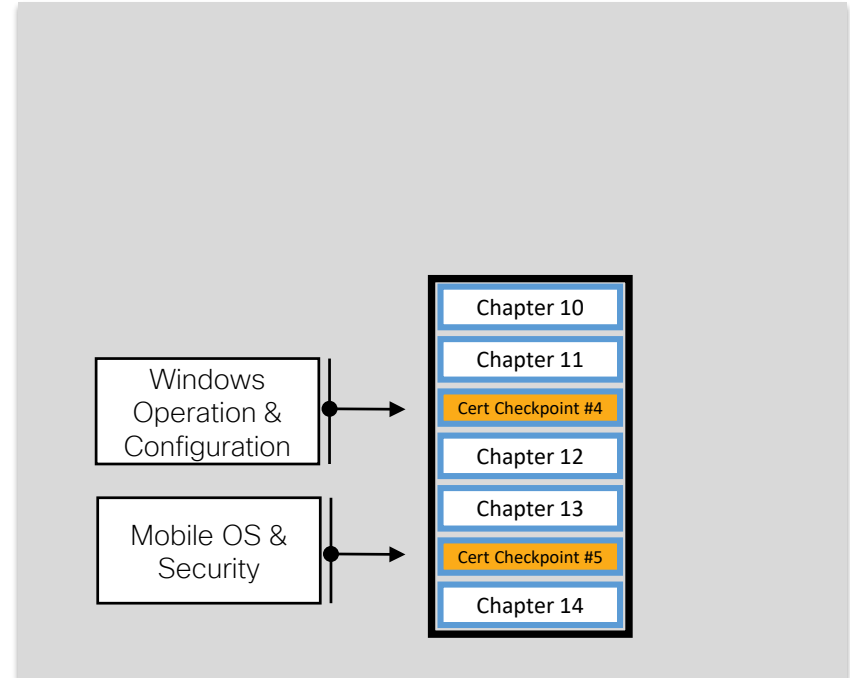
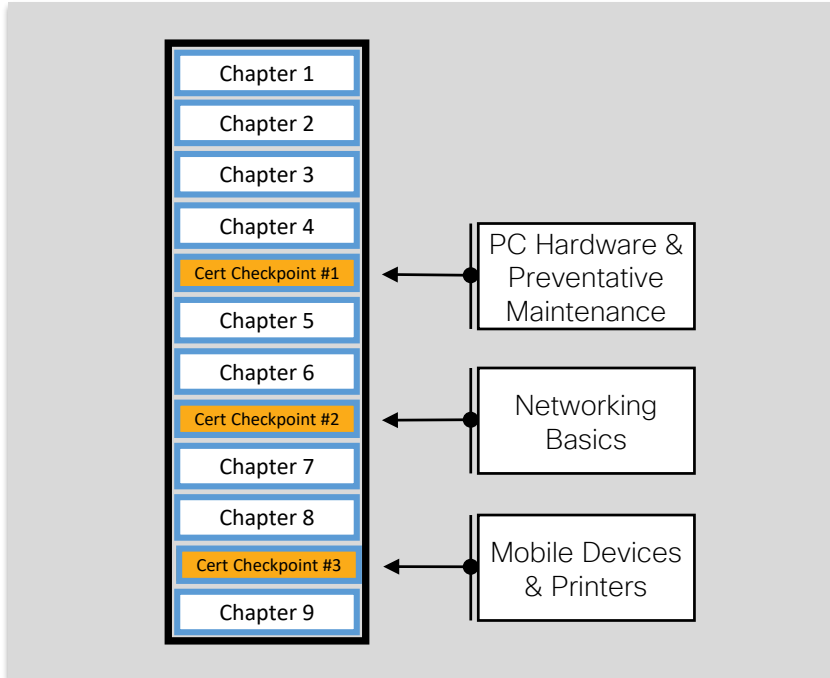
Course content aligned with Core 1 and Core 2 exams





Improved Outcomes

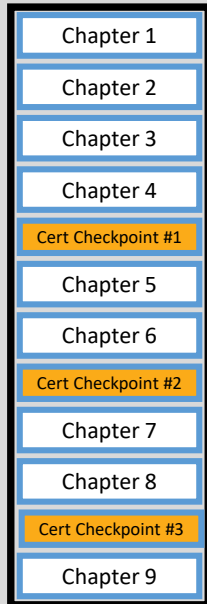
Scenario-based checkpoints prepare students for real job situations





Improved Outcomes

Assessments give students hands-on and scenario-based practice



Choose to use separate or comprehensive final exams

Practice Final #1

Final Exam #1

Hands-On #1

Core 1 Practice

OR

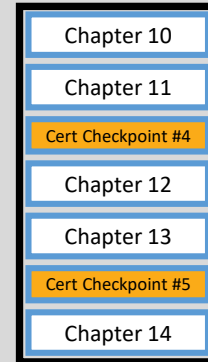
Comprehensive Final

Practice Final #2

Final Exam #2

Hands-On #2

Core 2 Practice





Improved Outcomes

Administer unique exams to each of your students

- Exams are dynamically generated from pool of questions, maintaining exam integrity and validity
- Available for all course exams
 - Chapters
 - Checkpoints
 - Practices
 - Finals
- All items, delivered or not, are available for preview with the assessment viewer

Assessment Viewer

Introduction to Networks (Version 6.0) - ITN Chapter 8 Exam Beta 34 of 38

English Form A ITN Chapter 8 Beta

34 What is the prefix associated with the IPv6 address 2001:cd23:bf11:b155:a3c1::1/64?

od23

2001

a3c1

bf11

b155

Observable	Description	Max Value
correctness of response	2 points for Option 5 0 points for any other option	2

Section Details

LI 8.1 AIG Template 90000460

10 items are available.

1 items are selected and delivered to the learner.

Selected items are grouped together.

Selected items are displayed in random sequence.

LI 8.1

LI 8.1 AIG Template 90000460

19: MCSA

20: MCSA

21: MCSA

22: MCSA

23: MCSA

24: MCSA

25: MCSA

26: MCSA

27: MCSA

28: MCSA

LI 8.2

LI 8.3

LI 8.3 AIG Template 90000348

33: MCSA

34: MCSA

Logistics & Timing





ITE 7 Equipment Requirements

Focus is on Microsoft Windows 10, but includes Windows 7, Windows 8 and 8.1. Only one Microsoft operating system installation media is required to complete the curriculum labs.

Curriculum requirements:

Ratio of one Lab PC per student

Lab PC Hardware Requirements:

- 1 PC Case with 300W power supply
- Intel or AMD CPU, 1 gigahertz (GHz) or faster with support for PAE, NX, and SSE2
- 1 gigabyte (GB) RAM (32-bit) or 4 GB RAM (64-bit) (2 X 1GB or 2 X 2GB suggested)
- 60 GB hard drive (minimum); 80 GB or more (recommended)
- 1 DVD-ROM (minimum), DVDR, or BD/BDR
- 1 PCI, PCIe (recommended), or AGP video card

Detailed equipment information will be available in the Instructor Lab source files and the ITE Equipment List located in the IT Essentials resources folder on netacad.com

Lab PC Repair Tools

- Phillips and Flathead screwdriver
- Electrostatic discharge (ESD) wrist strap and cord
- Safety glasses, Lint-free cloth and a Flashlight
- Thermal compound
- Wire cutters, RJ-45 Crimpers, Cable strippers and a modular cable tester
- Multimeter and ower supply tester

Additional Required Lab Equipment

- 1 Internet connection for Internet searches and driver downloads
- 1 printer or integrated printer/scanner/copier for the class to share
- 1 wireless router with WPA2 support for the class to share
- 2 Wireless network adapters (compatible with the above wireless router) for the class to share
- Various USB flash drives for moving files between computers in the labs.
- Smartphones and tablets are desirable for use with the labs in the Mobile Devices chapter

minimum requirements



ITE 7 Instructor Training Requirements

ITE 6 Instructors

- No instructor training required
- Review of instructor resources recommended

New Instructors

- Required to complete training through an Instructor Training Center (ITC) with ITE 7
- Must successfully pass skills-based assessment
- Instructor Fast Track option available to those with prior subject matter knowledge
- Fast Track enrollment prerequisites (one or more of following):
 1. Formal evidence of one year of recent experience in the computer repair field or equivalent industry certification
 2. Formal evidence of having taught two classes in the subject area



ITE 7 Translation plan

Course	Language *
IT Essentials 7	Spanish
	Portuguese
	French
	Chinese
	Russian
	Arabic

* Translated curricula will be released in the Nov 2019 -Mar 2020 timeframe.



ITE 6 End of Life

Course	Language *	Last Class Start Date
IT Essentials 7	English	July 31, 2020
	Spanish	End-of-life dates for translated languages will be announced when each language is released.
	Portuguese	
	French	
	Chinese	
	Russian	
	Arabic	



ITE 7 Course Resources

- Scope and Sequence
- Frequently Asked Questions
- Release Notes
- Overview Presentation
- At-a-Glance

<https://www.netacad.com/portal/resources/course-resources/it-essentials>

Networking
CISCO Academy

IT Essentials 7.0
Scope and Sequence

Networking
CISCO Academy

IT Essentials 7.0
Frequently Asked Questions

Networking
CISCO Academy

IT Essentials 7



The Internet is changing life as we know it and bringing new opportunities to communities throughout the world, increasing the global demand for information and communication technology (ICT) skills. Innovations such as social networking, cloud computing, virtualization and mobile devices are changing the way we live, work, play, and learn. These innovations are all powered by networks, and there is a shortage of qualified ICT candidates to design, install, and manage these networks.

IT Essentials

The Cisco Networking Academy® IT Essentials curriculum provides an introduction to the technical skills needed to help meet the growing demand for entry-level ICT professionals. The curriculum covers the basics of

- Emphasis on the practical application of skills and procedures needed for hardware and software installations, upgrades, and troubleshooting.
- Cisco® Packet Tracer simulation-based learning activities promote the exploration of networking and network security concepts, while allowing students to experiment with network behavior.
- Online assessments provide immediate feedback to support the evaluation of knowledge and acquired skills.
- The course helps students develop the career skills needed to successfully communicate within an ICT business environment and interact with customers.

Who Should Enroll

- Students seeking career-oriented, entry-level computer hardware, software, and networking skills
- Students wanting to gain fundamental computer and mobile device hardware, software configuration and troubleshooting skills
- Students who want to prepare for the CompTIA A+ certification exams

Prerequisites

There are no prerequisites for this course

- Settings v hardware include OS
- In addition, I CCNA® curriculum independent study, such as

Students V

Completion

- Select IT or upgrades
- Install a person
- Perform
- Explain
- Configure
- Explain devices
- Install a
- Describe
- Install a
- Perform operation
- Explain MacOS

Course Description

The Cisco IT Essentials (ITE) curriculum offers a hands-on, career-oriented learning experience with an emphasis on practical activities to help students develop fundamental

Questions?



