Lionfish Cyber Security Course Syllabus:

CompTIA A+ Core 2019 (220-1001/220-1002)

Interactive and entertaining talk-show style format presented by industry leading experts.

- 40+ hours of virtual training, practice exams, labs, and study.
- Receive a Certificate of completion
- Presented by highly qualified, industry leading experts
- 12 Months Access *(Unless indicated otherwise)*
- * The CompTIA bundle comes with online Labs and practice exams.

Description

The CompTIA A+ exam will help students demonstrate basic security skills, configuration for a variety of operating systems, troubleshooting, IT infrastructure and networking, the configuration of hardware, and data backup and recovery methods.

Curriculum Overview

The CompTIA IT Fundamentals Certification is an entry level certification designed to introduce users to basic computer principles. It covers basic IT literacy and ensures one understands the different terminology and the various concepts involved In the IT industry. It also serves as a great starting point if you are just getting started in computers and is designed to be the first step on your way to pursuing the CompTIA A+ certification or others similar. Topics covered include hardware basics, troubleshooting, software installation, security and networking.

Objectives

- Support operating systems.
- Install, configure, and maintain operating systems.
- Maintain and troubleshoot Microsoft Windows.
- Configure and troubleshoot network connections.
- Manage users, workstations, and shared resources.
- Implement client virtualization.

Prerequisites

- Recognize the main components of a PC as well as storage media such as USB drives and DVD.
- Start the computer and navigate the operating system desktop.
- Use Windows Explorer to create directories and subdirectories and manage files.
- Use a web browser to view websites.

Target Audience

- who has basic computer skills
- who desires to obtain a job as an entry-level IT technician.

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Syllabus

CompTIA A+ Core 1 (220-1001)	
#	Episode Name
1	Promo
2	Introduction
Chapter 0: All About the CompTIA A+	
1	CompTIA A+ Core 1 (220-1001) Introduction
2	What is the CompTIA A+?
3	Why Get CompTIA A+ Certified?
4	How to Pass the CompTIA A+ Exams
5	What is on the CompTIA A+ Core 1 (220-1001) Exam?
6	How to Use This Video Course
Chapter 1 - Safety and Professionalism	
1	Tools of the Trade
2	Troubleshooting Theory
Chapter 2 - The Visible Computer	
1	Primary PC Components
2	External Connections
3	Inside the PC
4	What is a Computer?
Chapter 3 - CPUs	
1	What is a CPU?
2	CPU Speeds and Cores
3	Caching
4	CPU Sockets
5	Installing a CPU
6	Liquid Cooling
Chapter 4 - RAM	
1	RAM Technology
2	RAM Capacity
3	RAM Features
4	Installing RAM
Chapter 5 - Firmware	

1	What is the BIOS?
2	POST
3	System Setup
4	Troubleshooting Firmware

Chapter 6 - Motherboards

1	Form Factors
2	Chipsets
3	Touring the Motherboard
4	Touring the Case
5	Installing a Motherboard

Chapter 7 - Power Supplies

1	The Power Supply
2	Mouting a Power Supply
3	Choosing a Power Supply
4	Cooling Your PC
5	Troubleshooting Power Supplies
6	Troubleshooting Core Components

Chapter 8 - Mass Storage Technologies

1	Introduction to Mass Storage
2	Magnetic Disk Drives
3	Solid State Drives
4	SCSI
5	Boot Order

Chapter 9: Implementing Mass Storage

1	New Installation - First Drive
2	RAID
3	Hardware RAID
4	Mass Storage Troubleshooting

Chapter 10 - Essential Peripherals

1	Optical Media
2	USB Standards
3	Understanding USB
4	Configuring USB
5	Thunder and Lightning
6	Keyboards and Mice
7	Sight and Sound
8	Readers and Scanners
9	Using Expansion Cards

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Chapter 11: Building a PC	
1	The Right PC for the Job
Chapter 12 - Display Technologies	
1	Monitor Technologies
2	LCD Breakdown
3	Graphics Cards and Connections
4	Installing a Graphics Card
5	Projectors
6	Troubleshooting Monitors
Chapter 13 - Essentials of Networking	
1	Introduction to Networking
2	Hubs vs. Switches
3	Hexadecimal
4	WANs and Routers
5	Cables and Connectors
6	Crimping Cables
7	Structured Cabling
Chapter 14 - Local Area Networking	
1	Introduction to TCP/IP
2	Network IDs and Subnet Masks
3	Special IP Addresses
4	NAT
5	Dynamic IP Addressing
6	IPv6
7	Port Numbers
8	TCP, UDP, and ICMP
9	Understanding DNS
10	Working with DNS
11	Windows Naming
12	Routers
13	Basic Router Configuration
14	Advanced Router Configuration
15	VLANs
16	Network Troubleshooting
Chapter 15 - Wireless Networking	
1	Wireless Network Hardware
2	Wi-Fi Standards
3	Basic WAP Setup

4	Connecting to a Wi-Fi Network
5	It's a Huge Mesh
6	Beyond Wi-Fi
7	Enterprise Wireless
8	Troubleshooting Wireless Connections

Chapter 16 - The Internet

1	Beyond the LAN
2	Internet Tiers
3	Dial-up Connections
4	Broadband Connections
5	Firewalls and Servers
6	FTP
7	E-Mail
8	Proxy Servers
9	Virtual Private Networks (VPNs)
10	Internet of Things (IoT)

Chapter 17 - Virtualization

1	Understanding Virtualization
2	Your First Virtual Machine
3	Advanced Virtualization Setup
4	Cloud Computing
5	Cloud Ownership
6	Cloud-Based Applications

Chapter 18 - Portable Computing

1	Laptop Features
2	Laptop Hardware Troubleshooting - The Tools
3	Laptop Hardware - Core Hardware
4	Laptop Hardware - CPU and Motherboard
5	Touring Your Laptop Display

Chapter 19 - Understanding Mobile Devices

1	What is a Mobile Device?
2	Mobile Connections
3	Touring Android
4	Touring iOS
5	Virtual Reality

Chapter 20 - Care and Feeding of Mobile Devices

1	Maintaining Mobile Devices
2	Mobile Devices and E-mail

3	Mobile Synchronization

Chapter 21 - Printers and Multifunction Devices

1	Laser Printers
2	Inkjet Printers
3	Impact Printers
4	Thermal Printers
5	Installing a Local Printer
6	Sharing Printers
7	Installing Wireless and Cloud Printers
8	Troubleshooting Printers
9	3D Printing

Chapter 22 - Securing Computers

1	Dealing with Threats

CompTIA A+ Core 2 (220-1002)

#	Episode Name
1	Promo
2	Introduction

Chapter 0 - CompTIA A+ Core 2 (220-1002) Introduction

1	CompTIA A+ Core 2 (220-1002) Introduction
2	What is the CompTIA A+?
3	Why Get CompTIA A+ Certified?
4	How to Pass the CompTIA A+ Exams
5	What is on the CompTIA A+ Core 2 (220-1002) Exam?
6	How to Use This Video Course

Chapter 1 - Safety and Professionalism

1	Professional Communication, Part 1
2	Professional Communication, Part 2
3	Physical Safety

Chapter 2 - The Visible Computer

1	What is an Operating System?
2	Users and Super Users
3	Why Windows?
4	Windows Editions and Versions
5	Touring the macOS

6	Touring Linux

Chapter 3 - CPUs

1	32-Bit vs. 64-Bit Processing

Chapter 4 - RAM

1	Virtual Memory

Chapter 5

1	(There are no episode from Ch. 5 in the 220-1002)

Chapter 6

1	(There are no episode from Ch. 6 in the 220-1002)

Chapter 7 - Power Supplies

1	Power Protection

Chapter 8 - Mass Storage Technologies

1	(There are no episode from Ch. 8 in the 220-1002)

Chapter 9 - Implementing Mass Storage

1	Understanding Partitioning
2	MBR Partitioning
3	GPT Partitioning
4	Understanding File Systems
5	Popular File Systems
6	Formatting in Action
7	Dynamic Disks
8	Software RAID in Storage Spaces
9	Encrypting Mass Storage

Chapter 10 - Essential Peripherals

1	(There are no episode from Ch. 10 in the 220-1002)

Chapter 11 - Building a PC

1	Boot from Everything
2	Installing Windows
3	Post-Installation Tasks
4	Windows Installation options

Chapter 12 - Windows Under the Hood

1	What is the Registry?
2	Processes
3	Services
4	Your Windows Toolset

5	Windows 7 Task Manager
6	Windows 10 Task Manager
7	Information and Configuration Tools
8	Performance Monitor
9	Event Viewer
10	Tools for Programmers

Chapter 13 - Users, Groups, and Permissions

1	Introduction to Users and Groups
2	Managing Users and Groups
3	NTFS Permissions
4	Linux and macOS Permissions
5	File Explorer
6	Sharing Resources
7	Security Policies

Chapter 14 - Maintaining and Optimizing Operating Systems

1	Patch Management
2	Working with Disks
3	Working with Applications
4	System Restore
5	Backing up Your Files
6	Task Scheduler

Chapter 15 - Working with the Command-Line Interface

1	Understanding the CLI
2	Navigating the CLI
3	Working with Folders
4	Working with Files
5	Working with Drives
6	Super Copy Commands
7	Advanced Windows Command Line
8	Advanced Linux Commands
9	Command-Line Permissions
10	Introduction to Scripting
11	Interpreted Languages

Chapter 16 - Troubleshooting Operating Systems

1	Windows Recovery Environment
2	Advanced Windows Startup Options
3	Troubleshooting Boot Problems
4	Troubleshooting at the GUI
5	Troubleshooting Applications

6	Kernel Panic

Chapter 17 - Display Technologies

1	Resolutions and Aspect Ratios
2	Multiple Monitors

Chapter 18 - Essentials of Networking

1	Network Card Troubleshooting

Chapter 19 - Local Area Networking

1	Working with Connections
2	Working with Workgroups
3	Working with Active Directory
4	Windows Sharing with Mac and Linux
5	Net Command
6	Firewall Configuration
7	Windows Firewall
8	Port Forwarding

Chapter 20 - Wireless Networking

1	Wireless Encryption
2	Enterprise Wireless

Chapter 21 - The Internet

1	Telnet and SSH
2	Remote Desktop Connections
3	The World Wide Web
4	Troubleshooting Internet Connections

Chapter 22 - Virtualization

1	(There are no episode from Ch. 22 in the 220-1002)

Chapter 23 - Portable Computing

1	Power Management

Chapter 24 - Understanding Mobile Devices

1	(There are no episode from Ch. 24 in the 220-1002)

Chapter 25 - Care and Feeding of Mobile Devices

1	Mobile Device Security
2	Mobile Security Troubleshooting
3	Mobile Device Troubleshooting

Chapter 26 - Printers and Multifunction Devices

1	(There are no episode from Ch. 26 in the 220-1002)

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Chapter 27 - Securing Computers

1	Threats
2	Physical Security
3	Passwords and Authentication
4	Malware
5	Anti-Malware
6	Social Engineering
7	Licensing
8	Incident Response
9	Environmental Controls

Chapter 28 - Getting Organized

1	Documents You Need to Know
2	Data You Need to Know
3	Change Management
4	The Zen of Backup
5	Recycling and Data Destruction

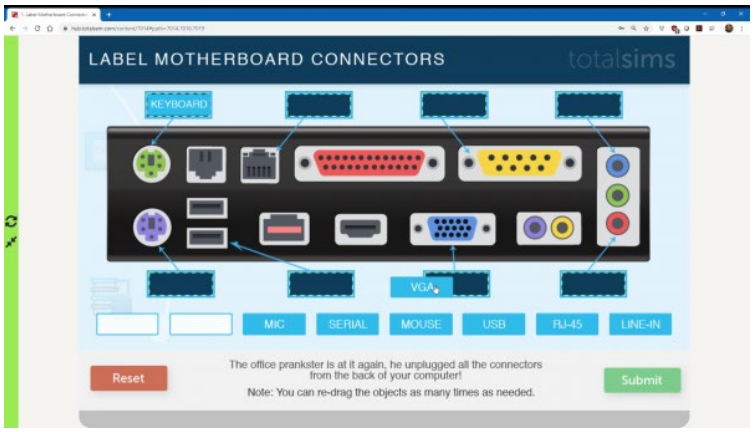
Prepare for the CompTIA A+ exams with the excellent TotalSims performance-based learning tool. The 250 simulations mirror the performance-based questions you'll see on the real exam. TotalSims enable you to practice on test questions and assess your skill and knowledge of the material. Get certified the best way, the TotalSims way!

- Applies to the current 220-1000 and 220-1001 exams
- Includes 250 performance-based simulations
- Requires Windows, macOS, Chrome OS, or Linux (iOS and Android not supported)
- Single-user license

TotalSims Features

TotalSims for the CompTIA A+ certification exams include 250 interactive simulations, presented via four effective learning tools. Prepare for CompTIA's performance-based certification exam questions.

- *Show!* operating system and application training demonstrations
- *Click!* interactive graphical Windows exercises
- *Type!* interactive command-line Windows exercises
- *Challenge!* interactive configuration and identification exercises



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- Applies to the current 220-1001 and 220-1002 exams
- Includes over 1000 questions
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- Single-user license

TotalTester Features

Testing Modes

- Practice Mode: tests with hints and study references
- Exam Mode: just like the real thing, no help, just you and the questions
- Results graded by topic for easy review

Customized Tests

- Filter questions by chapter in the associated book or by exam objectives
- Choose whether or not to include hints and study references
- Choose the number of questions on your practice test
- Set your own time limit

Test History

- See the date you took each test
- View final score for each test
- See number of questions answered correctly by chapter or objective
- Review each question, see your answer, the correct answer, and explanations

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Sample Certificate when you have completed each course

This institution is regulated by the Office for Career and Technical Schools
10 N Senate Avenue, Suite SE 308, Indianapolis 46204
OCTS@dwd.in.gov | http://www.in.gov/dwd/2731.htm

Lionfish Cyber Security has partnered with Instructor Mike Myers & Total Seminars to bring you best in class training, Labs and Practice exams.