

Unit and Time Frame	Chapter	Week	Time Frame	Technical Concepts Req'd by CompTIA Strata Fundamentals	Chapter Topics	Teachers Indicators
COMPTIA Strata Units:						After Completing the topic the student will be able to:
Safety & green IT, set up Lab	22	1	8/31-9/3/2015	5.1, 5.3	Topic A: Safety and hazards Topic B: Electrical safety Topic C: Green IT Topic D: Disposing of computer equipment	Identify safety issues and hazards in the computer environment Describe electrostatic discharge, and follow ESD safe practices while working with computer components Describe ways to use technology in ways that save energy and reduce waste Identify proper methods for disposing of computer equipment
Computer hardware and Maintenance	23			1.1, 2.3	Topic A: Environment Topic B: Preventative hardware maintenance	Discuss the effect of location, building materials, power supply, and fire suppression technologies in maintaining a secure environment Perform preventative maintenance on computer hardware
Personal computer Basics	1	2	9/14-9/18/2015	1.5, 1.7, 1.2, 1.6	Topic A: Selecting the right computer and components Topic B: What makes computers work Topic C: Window management	Define the components that make up a computer and examine the inside of a computer Discuss the software that controls the computer and enables you to use applications Manipulate window content and move and resize windows
Connectors and adapters	15			1.7, 2.1	Topic A: Serial and PS/2 connectors Topic B: USB and FireWire	Identify serial and PS/2 ports and connectors Identify USB and FireWire ports and connectors
Managing Computer contents	2			1.1, 3.2,	Topic A: Storing items on your computer Topic B: Working with folders Topic C: Working with files Topic D: Advanced file and folder management	Define how the computer process works and save items on the computer Create folders and manage their files Create and manipulate files Identify and change file attributes and set folder options
Processors and Memory	17			1.1, 2.1, 1.6, 2.1, 2.2	Topic A: The central processing unit	Describe the functions and features of CPUs and the different types of computer buses

					<ul style="list-style-type: none"> Topic B: Memory Topic C: Memory packaging Topic D: Memory monitoring 	<ul style="list-style-type: none"> Describe the function of memory, and differentiate among various types of memory chips Differentiate among the various memory packages Monitor memory usage
Searching for content and using Help	3	3/9/14-9/18/2015			<ul style="list-style-type: none"> Topic A: Content searches Topic B: Windows Help and Support 	<ul style="list-style-type: none"> Search for items on your computer that contain a specific word Use Windows Help and Support to learn about topics of interest
Windows Settings	4				<ul style="list-style-type: none"> Topic A: The desktop and Start menu Topic B: Taskbar and display settings 	<ul style="list-style-type: none"> Customize your desktop and Start menu Customize the taskbar and display settings
System Tools	5		3.3, 2.3, 3.2		<ul style="list-style-type: none"> Topic C: System Settings Topic A: Performance Topic B: Hard disk maintenance Topic C: Backups 	<ul style="list-style-type: none"> Configure system settings using Control Panel Display system performance information Perform disk maintenance Use Windows backup
Data Storage Devices	18				<ul style="list-style-type: none"> Topic A: Optical drives Topic B: Removable storage devices Topic C: Hard drives 	<ul style="list-style-type: none"> Describe optical data-storage technology and use optical drives and discs Use USB flash drives Describe hard drives and hard drive interfaces
Display devices	14		1.2, 1.7, 3.1		<ul style="list-style-type: none"> Topic A: External monitors Topic B: Integrated monitors 	<ul style="list-style-type: none"> Demonstrate the proper use of external monitors Demonstrate the proper use of integrated monitors
Software	6	4/9/21-9/25/2015	1.6, 2.2, 3.1		<ul style="list-style-type: none"> Topic A: Working with programs 	<ul style="list-style-type: none"> Install, configure, troubleshoot, and remove programs
Windows Security	7		3.1, 4.1		<ul style="list-style-type: none"> Topic A: User accounts Topic B: Windows Firewall Topic C: Automatic updates Topic D: Malware 	<ul style="list-style-type: none"> Manage local user accounts Configure the Windows Firewall Configure automatic updates Manage malware protection
Windows networking	8				<ul style="list-style-type: none"> Topic A: Basic networking Topic B: Network connections Topic C: Advanced file sharing Topic D: Printer sharing 	<ul style="list-style-type: none"> Explain networking, describe the features of a network, and list typical types of networks Join a network, browse for shared folders, and share folders Share documents via the Public Documents folder, create shortcuts to shared folders, and stop sharing folders Share a printer and connect to a shared printer
Web browsing basics	9	5/9/28-10/2/2015	1.1,		<ul style="list-style-type: none"> Topic A: Browsing the Web 	<ul style="list-style-type: none"> Start Internet Explorer and describe its basic components

Browsing with Internet	10			<p>Topic B: Internet basics</p> <ul style="list-style-type: none"> Understand Web addresses and IP addresses, and describe the role of a DNS server Use the Favorites Center Use the tabbed browsing feature <p>Topic C: Searching</p> <ul style="list-style-type: none"> Conduct basic searches and use advanced search features Customize some features of Internet Explorer Use the zoom, save, and print functions <p>Topic A: Customization</p> <ul style="list-style-type: none"> Download and install add-on programs <p>Topic B: Zooming, saving, and printing</p> <ul style="list-style-type: none"> Download and install add-on programs <p>Topic C: Add-ons</p> <ul style="list-style-type: none"> Download and install add-on programs <p>Topic D: Multimedia content</p> <ul style="list-style-type: none"> Play multimedia content in the browser
Customizing Internet	11		1.1, 3.1	<p>Topic A: Privacy</p> <ul style="list-style-type: none"> Set privacy options <p>Topic B: Security</p> <ul style="list-style-type: none"> Set security options
Internet privacy and Security	12		1.1, 4.1,	
Printing	13	6:10/5-10/9/2015	1.7,	<p>Topic A: Windows printing</p> <ul style="list-style-type: none"> Add a new printer and set the default printer <p>Topic B: Managing print jobs</p> <ul style="list-style-type: none"> Manage print jobs <p>Topic C: Inkjet printers</p> <ul style="list-style-type: none"> Describe and install inkjet printers <p>Topic D: Laser printers</p> <ul style="list-style-type: none"> Describe and install laser printers
Multimedia Devices	16		1.7, 2.2	<p>Topic A: Devices and drivers</p> <ul style="list-style-type: none"> Enable a device and install a new device <p>Topic B: Audio devices</p> <ul style="list-style-type: none"> Explain the characteristics and functions of audio devices <p>Topic C: Scanners and cameras</p> <ul style="list-style-type: none"> Install and configure image input devices
Network Basics	19	7:10/12-10/16/2015	1.1, 1.2, 2.1	<p>Topic A: Network concepts</p> <ul style="list-style-type: none"> Describe the basic components of a network <p>Topic B: Wide area networks</p> <ul style="list-style-type: none"> Describe WAN technologies
Network protocols and connections	20		1.1, 4.1	<p>Topic A: Addressing</p> <ul style="list-style-type: none"> Describe how various types of addresses are used to identify devices on a network <p>Topic B: Client configuration</p> <ul style="list-style-type: none"> Create client network connections by using wired and wireless methods
Network Security Overview	21		4.1,	<p>Topic A: Introduction to network security</p> <ul style="list-style-type: none"> Discuss network security <p>Topic B: Understanding security threats</p> <ul style="list-style-type: none"> Discuss security threat trends and their ramifications <p>Topic C: Creating a secure network strategy</p> <ul style="list-style-type: none"> Determine the factors involved in creating a secure network strategy
Review, Strata Exam		8:10/19-10/21/2015		
COMPTIA A+ Units:			A+ 220-801/802	

The Path of the PC Tech	1	9:10/26-10/30/2015	1.2	The students will learn about CompTIA A+ certification	Explain the importance of skill in managing and troubleshooting PCs, Explain the importance of CompTIA A+ certification, Describe how to become CompTIA A+ certified
Electricity & power supplies	10		1.8	The students will identify various power supplies and install and test power supplies.	Explain the basics of electricity. Describe the details about powering the PC. Install and maintain power supplies.
Operational procedures	2		5.1, 5.2, 5.3	The students will learn the skills needed to work effectively with customers.	Understand power supply troubleshooting and fire safety Present themselves with a proper appearance and professional manner. Talk to customers in a professional, productive manner. Work with PCs safely using the proper tools.
Input Devices	20	10:11/2-11/6/2015	1.7, 1.12	This lesson will explain common input devices.	Explain how to support common input/output ports. Identify certain standard input devices on a PC. Describe how certain multimedia input devices work on a PC
BIOS	8		1.1	The students will know how to identify various BIOS types and understand how the BIOS functions.	Explain the function of the BIOS. Distinguish among various CMOS setup utility options. Describe option ROM and device drivers. Troubleshoot the power-on self-test (POST). Maintain the BIOS and CMOS properly.
Microprocessors	6		1.6	The students will identify various CPU types, upgrade a CPU, and install a CPU correctly.	Identify the core components of a CPU. Describe the relationship of CPUs and memory. Explain the varieties of modern CPUs. Select and install a CPU. Troubleshoot CPUs
Motherboards	9	11:11/9-11/13/2015	1.2	The students are instructed how motherboards work, how to identify various kinds of motherboards, and the importance of chipsets, and how to install MOBO's.	Explain how motherboards work, Recognize modern expansion buses, Upgrade and install motherboards, Troubleshoot motherboard problems
Command-line Interface	18		1.3b	The students will learn how to use the command line interface.	Explain the operation of the command-line interface, Execute fundamental commands from the command line, Manipulate files and folders from the command line
RAM	7	12:11/16-11/20/2015	1.3	The students will learn to identify various RAM types, and learn how to install or upgrade RAM	Identify the different types of RAM packaging, Explain the varieties of DRAM, Install RAM properly, Perform basic RAM troubleshooting
Visible Windows	4	13	1.1b	The students will understand Windows and the role of the operating system.	Relate the history of Microsoft Windows. Explain the Windows interface. Identify the operating system folders of Windows 2000, XP, Vista, and Windows 7. Describe the utilities in Windows that are essential to techs.
Installing & Upgrading Windows	14	11/23-11/24/2015	1.2b	The students will understand the role of the operating system (OS) and the Windows installation process.	Identify and implement pre-installation tasks. Install and upgrade Windows XP, Windows Vista, and Windows 7. Troubleshoot installation problems. Identify and implement post-installation tasks

Windows Under the Hood	15		1.3b	The students will understand the basics of what makes Windows work "under the hood".	Work with the Registry. Understand and observe in detail the Windows boot process. Control processes and services. Explore Windows tools for programmers.
Hard Drive Technologies	11	15:11/30-12/4/2015	1.5, 1.7, 1.11	The students will identify various hard drive types, understand hard drive geometry, and install or upgrade hard drives.	Explain how hard drives work. Identify and explain the SATA and SCSI hard drive interfaces. Identify and explain the SCSI hard drives. Describe how to protect data with RAID. Install hard drives. Configure CMOS and install drivers. Troubleshoot hard drive installation.
Implementing Hard Drives	12		1.3b	The students will set up the hard drive for data retrieval.	Explain the partitions available in Windows. Discuss the hard drive formatting options. Partition and format hard drives. Maintain and troubleshoot hard drives.
Video	21	16:12/7-12/11/2015	1.7, 1.10, 1.11	This lesson will explain how to use video and install video cards and monitors.	Explain how video displays work. Select the proper video card. Install and configure video. Troubleshoot basic video problems.
Multimedia	25		1.12	The students will learn how to install and use sound cards	Describe how to implement sound in a PC. Install and configure video capture hardware and software. Set up a PC to view television signals.
Printers	28	17:12/14-12/23/2015	1.4, 4.1, 4.2, 4.3	The students will learn how to install, use, and troubleshoot printers.	Describe current printer technologies. Explain the laser printing process. Install a printer on a Windows PC. Recognize and fix basic printer problems.
Review Strata		19:1/4/-1/8/2016	4.9b		
Removable Media	13	20:1/11-1/15/2016	1.5	The students will identify various floppy drives, installing one, and maintaining it.	Explain and install floppy disk drives. Demonstrate the variations among flash drives and other tiny drives. Identify and install optical-media technology. Troubleshoot removable media.
NTFS, Users and Groups	16		1.8b	The students will understand how to secure Windows resources, using user and group accounts, passwords, NTFS permissions, and encryption technologies.	Create and administer Windows user accounts and groups. Define and use NTFS permissions for authorization. Share a Windows computer securely. Secure PCs with User Account Control.
Local Area Networking	22	21:1/29-1/22/2016	1.4, 2.1, 2.2, 2.3	The students will set up, install and troubleshoot networks and understand TCP/IP.	Install and troubleshoot structured cabling. Explain the basics of TCP/IP. Install and configure wired networks. Troubleshoot wired networks.
Wireless Networking	23	22:1/25-1/29/2016	1.7, 2.5, 2.6	The students will learn how to set up and secure a wireless network	Discuss wireless networking components. Analyze and explain wireless networking standards. Install and configure wireless networks. Troubleshoot wireless networks.
Maintaining and Optimizing Windows	17	23:2/1-2/4/2016	1.5, 1.7b	This lesson will explain how to use the Windows XP, Vista, and 7 operating systems.	Perform maintenance tasks in Windows. Optimize Windows. Prepare Windows for problems.

Troubleshooting Windows	19			This lesson will discuss the various problems that can occur during a Windows startup and how to repair these problems in Windows XP, Vista, and 7.	Troubleshoot Windows boot problems. Troubleshoot Windows GUI problems. Troubleshoot Windows application problems.
Securing Computers	29	24:2/8-2/12/2016	4.7b	This lesson teaches the students about computer security.	Explain the threats to your computers and data. Describe key security concepts and technologies. Explain how to protect computers from network threats.
Mobile Devices	27	25:2/15-2/19/2016	3.2b	The students will learn how mobile devices, such as smartphones and tablets, are used, how they are both similar to and different from PCs, and some facts about their operation.	Explain the features and capabilities of smartphones and tablets. Explain how to configure mobile devices. Describe how to secure mobile devices.
Portable Computing	26		3.1, 3.2, 3.3, 4.7b	The students will learn how to recognize and configure common service items on portable computing devices and laptops.	Describe the many types of portable computing devices available. Explain ways to expand portable computers. Manage and maintain portable computers. Upgrade and repair portable computers. Troubleshoot portable computers.
The Internet	24	27:3/2-3/4/2016	1.7, 2.4, 2.6, 2.7, 2.9	This lesson teaches the students about the Internet and its workings. The students will learn the various ways to connect to the Internet.	Explain how the Internet works. Connect to the Internet. Use Internet application protocol. Troubleshoot an Internet connection.
Linux Install		28:3/7-3/11/2016		This lesson will familiarize students to the OS of Linux. Students will investigate different Distro's	Research (5) different Distro's. Install and configure OS. Compare and contrast Linux to Windows. Transfer files between OS.
Visible Networks	5	28:3/14-3/18/2016	1.7, 2.8, 2.9	The students will understand the very basics of the "visible" network.	Describe the basic functions of a network, including identifying common devices and connectors. Discuss the differences between a LAN and a WAN and the importance of TCP/IP. Perform basic resource sharing.
Project		30:3/21-3/24/2016		Project Based Learning	
The Complete PC Tech	32	31:3/28-4/1/2016	4.1b	This lesson teaches the students about working as a PC technician.	Describe how computers work. Implement a troubleshooting methodology. Describe a technician's toolkit
Skills USA, Portfolio		32:4/4-4/8/2016			

Virtualization	30	33:4/11-4/15/2016	1.9b	<ul style="list-style-type: none"> The students will learn the basic concepts of virtualization. An instructor-guided virtual machine setup will be reinforced by two exercises that allow the students to install and create their own virtual machines. 	<ul style="list-style-type: none"> Describe the concepts of virtualization. Explain why PC and network administrators have widely adopted virtualization. Describe how virtualization manifests in modern networks.
Tablets		35:4/25-4/29/2016			
IPV6		36:5/2-5/6/2016			
The Right PC for You	31	37:5/9-5/13/2016	1.9	<ul style="list-style-type: none"> This lesson will show the students how to design different classes of PCs for different uses, such as typical home use, workstation PCs, and gaming PCs. 	<ul style="list-style-type: none"> Research and build a standard thick client. Customize a professional PC. Build a specialized consumer PC.
The Visible PC	3			<ul style="list-style-type: none"> In this lesson, you'll help the students identify components normally found inside a PC, build their confidence in working with the internal components of a PC. 	<ul style="list-style-type: none"> Describe how the PC works. Identify all the connectors and devices on a typical PC system unit.
Final Project		39/40	5/16-5/27/2016		
Portfolio's		41	5/31-6/3/2016		
Take Down Classroom		42	6/6-6/10/2016		