

Course Title: IT Essentials (Tech Support Services)			
Course Number: 9001410			
NGSSS Benchmark	Content Focus	Number of Points Possible	Suggested Cognitive Complexity (per CPALMS)
<i>Reporting Category 1: Demonstrate knowledge, skill, and application of computer systems.</i>			
01.02	Describe the types of communications and networking systems used in workplace environments.	1	1 level 1 or 1 level 2
01.05	Describe ethical, privacy, and security issues and problems associated with computers and information systems.	1	1 level 2
Reporting category total		2	
<i>Reporting Category 2: Demonstrate knowledge of different operating systems</i>			
02.01	Identify the most common computer operating systems.	1	1 level 1
02.05	Compare and contrast various operating systems (e.g., DOS, Windows, Mac Linux).	1	1 level 2
02.06	Differentiate between different operating systems and applications	1	1 level 2
02.07	Compare and contrast open source and proprietary software.	1	1 level 2
02.08	Explain how system utilities are used to maintain computer performance.	1	1 level 2
Reporting category total		5	
<i>Reporting Category 3: Develop a familiarity with the information technology industry.</i>			
03.01	Explain how information technology impacts the operation and management of business and society.	1	1 level 2
03.03	Describe how digital technologies (social media, et al) are changing both work and personal lifestyles.	1	1 level 2
Reporting category total		2	
<i>Reporting Category 4: Develop an awareness of microprocessors and digital computers.</i>			
04.01	Describe the evolution of the digital computer.	1	1 level 2
04.02	Explain the general architecture of a microcomputer system.	1	1 level 2
04.05	Explain the need for and use of peripherals.	1	1 level 2
04.07	Identify the basic concepts of computer maintenance and upgrades.	1	1 level 2
Reporting category total		4	
<i>Reporting Category 5: Develop an awareness of programming languages.</i>			
05.01	Explain the evolution of programming languages.	1	1 level 1 or 1 level 2
05.03	Identify the three types of programming design approaches (e.g., top-down, structured, and object-oriented).	1	1 level 1

05.06	Characterize the major categories of programming languages and how they are used.	1	1 level 1
05.08	Describe the stages in the software development life cycle and explain how to successfully implement them.	1	1 level 2
Reporting category total		4	

Reporting Category 6: Develop an awareness of emerging technologies.

06.01	Compare and contrast emerging technologies and describe how they impact business in the global marketplace (e.g., wireless, wireless web, cell phones, portables/handhelds, smart appliances, home networks, peer-to-peer, etc.).	1	1 level 2 or 1 level 3
06.02	Describe social media as an emerging technology.	1	1 level 2
06.05	Characterize how the rapid pace of change in information technology impacts our society.	1	1 level 3
Reporting category total		3	

Reporting Category 7: Demonstrate an understanding of the Open Systems Interface (OSI) model.

07.01	Describe the evolution of OSI from its inception to the present and into the future.	1	1 level 2
07.03	Describe the purpose of the OSI model and each of its layers.	1	1 level 2
Reporting category total		2	

Reporting Category 8: Identify computer components and their functions.

08.01	Identify the internal components of a computer (e.g., power supply, hard drive, mother board, I/O cards/ports, cabling, etc.).	2	1 level 1 1 level 2
08.02	Use common computer and programming terminology	2	2 level 1
Reporting category total		4	

Reporting Category 9: Demonstrate proficiency using the Internet to locate information

09.01	Identify and describe web terminology.	2	2 level 1
09.02	Define Universal Resource Locators (URLs) and associated protocols (e.g., http, ftp, telnet, mailto).	1	1 level 1
09.03	Compare and contrast the types of Internet domains (e.g., .com, .org, .edu, .gov, .net, .mil).	1	1 level 2
09.04	Describe and observe Internet/Intranet ethics and copyright laws and regulatory control.	1	1 level 2
09.05	Trace the evolution of the Internet from its inception to the present and into the future.	1	1 level 2
09.08	Compare and contrast the roles of web servers and web browsers.	1	1 level 2
Reporting category total		7	

Reporting Category 10: Demonstrate proficiency using Hypertext Markup Language (HTML).

10.03	Identify elements of a webpage.	1	1 level 2
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Reporting category total		1	
Reporting Category 11: Demonstrate proficiency using common software applications			
12.01	Compare and contrast the appropriate use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, email, presentation, database, scheduling, financial management, Java applet, music, etc.).	1	1 level 2 or 1 level 3
Reporting category total		1	
Reporting Category 12: Perform email activities			
13.02	Identify components of an email message.	1	1 level 1
13.03	Identify the components of an email address.	1	1 level 1
13.04	Identify when to use different email options.	1	1 level 2
13.12	Identify common problems associated with widespread use of email.	1	1 level 2
Reporting category total		4	
Reporting Category 13: Demonstrate proficiency in using presentation software and equipment.			
14.03	Demonstrate knowledge of the roles and responsibilities of a multimedia production team (e.g. project manager, creative or design director, content experts, writers, graphic designers, animators, sound designers, videographer, interface designers/programmers, etc.).	1	1 level 3
Reporting category total		1	

Total number of questions: 40

Low Complexity: (%)

Moderate Complexity: (%)

High Complexity: (%)

Overall Percentage for Written Test: 50%

Overall Percentage for Performance Tasks: 50%

Performance Task #1	Demonstrate knowledge, skill, and application of computer systems including different operating systems, use of the internet to locate information, use of Hypertext Markup Language (HTML), and use of presentation software and equipment.		
Weighting Percent for this Task	50%		
Standard	02.02	Describe and use industry accepted file naming conventions	
	02.03	Demonstrate proficiency with file management tasks	
	02.04	Demonstrate a working knowledge of standard file formats.	
	04.06	Demonstrate proficiency installing and using plug-and-play peripheral devices.	
	09.06	Demonstrate proficiency using search engines, including Boolean search strategies.	
	09.07	Demonstrate proficiency using various web tools	
	10.06	Create storyboards depicting a multi-page website (e.g., linear, hierarchical).	
	10.07	Design, edit, and test HTML documents for accuracy and validity.	
	10.08	Create and modify webpages using a Graphical User Interface (GUI) editor.	

	<p>10.09 Enhance webpages through the addition of images and graphics including animation.</p> <p>12.02 Demonstrate proficiency in the use of various software application word processing, desktop publishing, graphics design, web browser, email, presentation, database, scheduling, financial management, Java applet, music, etc.]</p> <p>14.01 Produce a presentation that includes music, animation, and digital photography and present it using a projection system.</p> <p>14.02 Using presentation software, create a multimedia presentation that incorporates shot and edited video, animation, music, narration and adheres to good design principles, use of transitions, and effective message conveyance.</p> <p>14.05 Create a self-running presentation with synchronized audio, convey presentation slides (e.g. PowerPoint) into streaming ASF files for use on the Web</p>
Exemplar (If applicable)	N / A
Additional Information	Portfolio consisting of at least one webpage; one presentation (that includes music, animation, and digital photography), KeyNote, PowerPoint, presentation or Prezi presentation; and one multimedia presentation that incorporates shot and edited video, animation, music, narration and adheres to good design principles, use of transitions, and effective message conveyance.
Suggested Assessment Team	CTE teachers from local site.

Rubric:

4	Student demonstrated superior knowledge, skill, and application of computer systems including different operating systems, use of the internet to locate information, use of Hypertext Markup Language (HTML), and use of presentation software and equipment with no errors.
3	Student demonstrated a high level of knowledge, skill, and application of computer systems including different operating systems, use of the internet to locate information, use of Hypertext Markup Language (HTML), and use of presentation software and equipment with less than 3 errors.
2	Student demonstrated moderate knowledge, skill, and application of computer systems including different operating systems, use of the internet to locate information, use of Hypertext Markup Language (HTML), and use of presentation software and equipment with less than 6 errors..
1	Student demonstrated limited knowledge, skill, and application of computer systems including different operating systems, use of the internet to locate information, use of Hypertext Markup Language (HTML), and use of presentation software and equipment with less than 9 errors.
0	Student was unable to demonstrate knowledge, skill, and application of computer systems including different operating systems, use of the internet to locate information, use of Hypertext Markup Language (HTML), and use of presentation software and equipment.