Florida CTE

Information Technology (2024-25): Fundamentals of Web & Software Development (9009500)

Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance. The student will be able to: 1.00	1 **Develop keyboarding skills to enter and manipulate text and data.** 1.01 2 **Describe and use current and emerging computer technology and software to perform personal and business related tasks.** 1.02 3 **Identify and describe communications and networking systems used in workplace environments.** 1.03 4 **Use reference materials such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software.** 1.04 5 **Describe ethical issues and problems associated with computers and information systems.** 1.05
Demonstrate comprehension and communication. The student will be able to: 2.00	1 **Use listening, speaking, telecommunication and nonverbal skills and strategies to communicate effectively.** 2.01 2 **Organize ideas and communicate oral and written messages appropriate for information technology environments.** 2.02 3 **Collaborate with individuals and teams to complete tasks and solve information technology problems.** 2.03 4 **Demonstrate an awareness of project management concepts and tools (e.g., timelines, deadlines, resource allocation, time management, delegation of tasks, collaboration).** 2.04
Use technology to enhance the effectiveness of communication skills. The student will be able to: 3.00	1 **Use database, spreadsheet, presentation software, scheduling, and integrated software packages to enhance communication.** 3.01 2 **Respond to and utilize information derived from multiple sources (e.g., written documents, instructions, email, voice mail) to solve problems and complete tasks.** 3.02

Demonstrate an understanding of Internet safety and ethics. The student will be able to: 4.00	**1** Describe cyber-bullying and its impact on perpetrators and victims. 4.01
	2 Differentiate between viruses and malware, specifically their sources, ploys, and impact on personal privacy and computer operation, and ways to avoid infection. 4.02
	3 Describe risks associated with sexting, including related legal issues, social engineering aspects, prevention methods, and reporting of offenses. 4.03
	4 Describe the risks associated with online gaming and ways to mitigate these risks. 4.04
	5 Describe the ethics and copyright legalities of downloading music or videos from the Internet. 4.05
	6 Describe risks associated with social networking sites (e.g., FaceBook, MySpace, Twitter) and ways to mitigate these risks. 4.06
	7 Adhere to cyber safety practices with regard to conducting Internet searches, email, chat rooms, and other social network websites. 4.07
Perform email activities. The student will be able to: 5.00	**1** Describe email capabilities and functions. 5.01
	2 Identify components of an email message. 5.02
	3 Identify the components of an email address. 5.03
	4 Identify when to use different email options. 5.04
	5 Attach a file to an email message. 5.05
	6 Forward an email message. 5.06
	7 Use an address book. 5.07
	8 Reply to an email message. 5.08
	9 Use the Internet to perform email activities. 5.09
	10 Identify the appropriate use of email and demonstrate related email etiquette. 5.10
	11 Identify when to include information from an original email message in a response. 5.11
	12 Identify common problems associated with widespread use of email. 5.12
Demonstrate knowledge of different operating	**1** Identify operating system file naming conventions. 6.01

systems. The student will be able to: 6.00	**2** Demonstrate proficiency with file management and structure (e.g., folder creation, file creation, backup, copy, delete, open, save). 6.02
	3 Demonstrate a working knowledge of standard file formats. 6.03
	4 Explain the history and purpose of various operating systems (e.g., DOS, Windows, Mac, Linux). 6.04
Demonstrate proficiency navigating the Internet and the intranet. The student will be able to: 7.00	**1** Identify and describe Web terminology. 7.01
	2 Demonstrate proficiency in using the basic features of GUI browsers (e.g., setting bookmarks, basic configurations, email configurations, address book). 7.02
	3 Define Universal Resource Locators (URLs) and associated protocols (e.g., .com, .org, .edu, .gov, .net, .mil). 7.03
	4 Demonstrate proficiency using search engines (e.g., Yahoo!, Google). 7.04
	5 Demonstrate proficiency downloading files. 7.05
	6 Identify effective Boolean search strategies. 7.06
Demonstrate proficiency using HTML commands. The student will be able to: 8.00	**1** Identify elements of a Web page. 8.01
	2 Define basic HTML terminology. 8.02
	3 Analyze HTML source code developed by others. 8.03
	4 Create Web pages using basic HTML tags (e.g., links, lists, character styles, text alignment, tables). 8.04
	5 Edit and test HTML documents for accuracy and validity. 8.05
	6 Create a website using basic functions of a WYSIWYG or GUI editor. 8.06
	7 Use basic functions of HTML, DHTML, and XML editors and converters. 8.07
	8 Enhance web pages through the addition of images and graphics including animation. 8.08
Demonstrate proficiency in webpage design. The student will be able to: 9.00	**1** Demonstrate an understanding of acceptable webpage design. 9.01
	2 Design a website using storyboarding techniques. 9.02
	3 Describe and apply color theory as it applies to webpage design (e.g., background and text color). 9.03
	4 Access and digitize graphics through various resources (e.g., scanner, digital cameras, on-line graphics, clipart, CD-ROMs). 9.04

	5 Use image design software to create and edit images. 9.05
	6 Demonstrate proficiency in publishing to the Internet. 9.06
Demonstrate proficiency using specialized web design software. The student will be able to: 10.00	1 Compare and contrast various specialized web design software (e.g., Dreamweaver, Flash). 10.01
	2 Demonstrate proficiency using various specialized web design software (e.g., Dreamweaver, Flash). 10.02
Develop an awareness of programming languages. The student will be able to: 11.00	1 Explain the history of programming languages. 11.01
	2 Explain the need for and use of compilers. 11.02
	3 Explain how compilers work. 11.03
	4 Identify the three types of programming design approaches (e.g., top-down, structured, object-oriented). 11.04
	5 Compare the various types or classes of programming languages (e.g., compiled, interpretive). 11.05
	6 Differentiate among source code, machine code, interpreters, and compilers. 11.06
	7 Characterize the major categories of programming languages and how they are used. 11.07
	8 Create a model flowchart for a computer program. 11.08
	9 Describe the stages in the software development life cycle. 11.09
Demonstrate proficiency using common software applications. The student will be able to: 12.00	1 Compare and contrast the appropriate use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, e-mail, presentation, database). 12.01
	2 Demonstrate proficiency in the use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, e-mail, presentation, database). 12.02