



**Goodheart-Willcox Publisher Correlation of
Principles of Information Technology ©2017
to Tennessee Department of Education CTE Standards
Course: Computer Applications (5891)**

STANDARD		CORRELATING PAGES
Communication Networks, the Internet, and Technology Operations		
1	Research recent developments in information technology affecting the supply/demand characteristics of the job market, including career pathways and occupational outlooks for occupations in business and finance that require information technology expertise. Synthesize findings into a presentation highlighting the typical roles and responsibilities of professionals in high-growth occupations.	Instruction: Pg. 682–726 Careers in IT Application: Pg. 174 IR; 699 HE 17.1.2; 729 AEK #1; 730 CS Speaking
2	Identify, connect, and demonstrate the correct usage of elements of a typical home computer, including a monitor, keyboard, mouse, network cable, and USB devices (such as camera, memory, or scanner). Perform basic troubleshooting as needed for situations involving these components (e.g., if the computer does not recognize a device).	Instruction: Pg. 40–46 Basic Parts and Functions of a Computer; 50–52 Keyboards; 53 Types of Pointing Devices; 60–62 Monitors; 196 Cables and Connections; 197 External Storage; 559 Cable Application: Pg. 77 AEK #1; 208 AEK #4
3	Correctly and safely execute basic file management operations on a typical personal computer and shared storage media, including the opening, creating, copying, moving, deleting, and renaming of files and folders, as well as searching for a specified file or folder on local or networked storage media.	Instruction: Pg. 149–154 Locating Files and Folders; 156–162 Organizing Files and Folders; 231 Opening Files Application: Pg. 152 HE 4.2.1; 154 HE 4.2.2; 160–161 HE 4.3.1; 173–174 AEK #1–3; 232 HE 6.2.3
4	Describe and demonstrate the correct connections and setup for a new wireless router in a home computing environment. Discuss the impact of network speeds, wireless communication, firewalls, and gateways on individual and societal productivity.	Instruction: Pg. 573–574 Firewall; 663–664 Firewalls and Gateways Application: Pg. 576 HE 14.3.1; 681 IR
5	Describe the steps necessary to retrieve, download, and safely install new applications, updates, and plug-ins from the Internet.	Instruction: Pg. 123–127 Installing Software; 515 Upload and Download; 521 Downloading; 522–523 Plug-ins Application: Pg. 124–125 HE 3.3.4; 130 AEK #5; 523 HE 13.1.2

6	Compare and contrast the accessibility of the Internet through a home router versus through a public wi-fi access point. Discuss the risks and advantages of using secure home networks versus publicly accessible networks.	Instruction: Pg. 511–526 Internet; 558–563 Network Connection Technologies; 674–675 Public Internet Providers Application: Pg. 564 HE 14.1.1; 576 HE 14.3.1; 584 AEK #4
7	While preparing materials and assignments in this course, use a browser to access and download Internet resources by uniform resource locator (URL), hyperlink, or favorite/bookmark.	Instruction: Pg. 515 Upload and Download; 516 Hyperlinks; 516–518 Uniform Resource Locator; 521 Downloads; 522 Favorites or Bookmarks Application: Pg. 523 HE 13.1.2; 551–552 AEK #1–3, 5; 553 IR, Teamwork
Word Processing and Publishing		
8	Use a word processing program to create and format documents with academic and business styles (e.g., memos, letters, agendas, reports, tabular lists) to communicate the results of research, meetings, lab reports, and relevant assignments in this course.	Instruction: Pg. 246–249 Formatting Text; 266–287 Creating a Document; 304–316 Creating a Business Letter; 317–331 Creating a Report Application: Pg. 248–249 HE 6.3.5; 249 HE 6.3.6; 268–269 HE 7.1.1; 270–271 HE 7.1.2; 273 HE 7.1.3; 275 HE 7.1.4; 281–282 HE 7.1.7; 312 HE 8.1.1; 314–316 HE 8.1.2; 327 HE 8.2.1; 328–329 HE 8.2.2; 330 HE 8.2.3; 332 HE 8.2.4; 344 AEK #1, 5, CS Writing
9	Craft documents using word processing program features and methods such as: a. Paragraph formatting (line spacing, justification, indentations) b. Bulleted and numbered lists c. Tables of multiple columns, with and without borders d. Margins, headers, footers, page numbers, and footnotes e. Typeface fonts and weights, including hyperlinks f. Capitalization, punctuation, number expression, grammar g. Printing orientation, one- or two-sided, to a selected printer h. Bibliographies and tables of contents	Instruction: Pg. 154 Sharing Files Online; 225–231 Saving, Printing, and Opening Documents; 235–237 Creating and Working with Lists; 246–249 Formatting Text; 264–296 Word-Processing Software; 320 Table of Contents; 330–331 Citations; 376 Creating a Hyperlink; 380 Adding Headers and Footers Application: Pg. 227–228 HE 6.2.1; 230 HE 6.2.2; 237 HE 6.3.1; 248–249 HE 6.3.5; 249 HE 6.3.6; 262 AEK #4; 268–269 HE 7.1.1; 270–271 HE 7.1.2; 273 HE 7.1.3; 275 HE 7.1.4; 277–278 HE 7.1.5; 279 HE 7.1.6; 281–282 HE 7.1.7; 282–283 HE 7.1.8; 284–285 HE 7.1.9; 291–292 HE 7.2.1; 294–295 HE 7.2.2; 299–300 AEK; 332 HE 8.2.4; 344 AEK #1, 5; 377 HE 9.2.4; 380–381 HE 9.2.6



	i. Saving to a file that can be shared and/or transported, including saving to cloud-based or external sources	
10	Enhance documents by including graphic arts components such as borders and shaded elements, graphs and charts from other programs, watermarks, and imagery imported from technology devices and drives as well as sources retrieved from the Internet, including adding citations and/or captions for each element when appropriate.	Instruction: Pg. 330–331 Citations; 357 Adding Graphics Application: Pg. 332 HE 8.2.4; 358–360 HE 9.1.3
11	Create, format, and edit documents suitable for print or electronic distribution, both four-color and two-color (black and white).	Instruction: Pg. 233–249 Editing and Formatting; 266–287 Creating a Document Application: Pg. 242 HE 6.3.3; 248–249 HE 6.3.5; 249 HE 6.3.6; 261–262 AEK #2, #4; 262 CS Reading; 268–269 HE 7.1.1; 270–271 HE 7.1.2; 273 HE 7.1.3; 275 HE 7.1.4; 277–278 HE 7.1.5; 279 HE 7.1.6; 281–282 HE 7.1.7; 282–283 HE 7.1.8; 284–285 HE 7.1.9; 299–300 AEK
12	Critique and edit existing documents with standard proofreading and editing marks to conform to a standard business style guide (e.g., fonts, colors, line spacing). Practice the use of electronic revision marks and comments, where supported.	Instruction: Pg. 234–237 Editing Text; 269–270 Formatting Text; 274 Modifying Line Spacing and Paragraph Alignment; 286–287 Using Templates; 629–630 Collaborating Using Microsoft Office Application: Pg. 270–271 HE 7.1.2; 275 HE 7.1.4
13	Complete a comprehensive word-processing project with instructor approval that applies the skills acquired in this section. For example, prepare a contract, MLA-style report, business proposal, or budget report from a student organization.	Instruction: Pg. 264–296 Word-Processing Software; 304–314 Creating a Business Letter; 317–331 Creating a Report Application: Pg. 300 AEK #4; 344 AEK #1
Spreadsheet Applications		
14	Use a spreadsheet program to create and format academic and business documents for the purposes of tabulating and calculating numerical and/or textual data (e.g., statistics, historical data, measurements), such as budget calculations, sales reports, lab data, and related analyses.	Instruction: Pg. 246–249 Formatting Text; 318–324 Creating a Report; 398–429 Spreadsheet Software; 499–500 Creating Statistical Fields Application: Pg. 248–249 HE 6.3.5; 405–406 HE 10.1.1; 408 HE 10.1.2; 411 HE 10.2.1; 413–414 HE 10.2.2; 415 HE 10.2.3; 417 HE 10.2.4; 419 HE 10.2.5; 421–422 HE 10.2.6; 425–426 HE 10.2.7; 431–432 AEK; 500–501 HE 12.3.5
15	Craft documents using a spreadsheet program using features and methods such as: a. Cells, columns, and rows	Instruction: Pg. 225–231 Saving, Printing, and Opening Documents; 398–429 Spreadsheet Software; 437–441 Using Functions

	<p>b. Formulas and functions</p> <p>c. Copy, move, delete, and fill</p> <p>d. Cell-value formats (numerical and text) and alignment</p> <p>e. Column and row width/height, insert/delete, move</p> <p>f. Printing to a selected printer</p> <p>g. Saving with a file format that can be shared and/or transported</p>	<p>Application: Pg. 227–228 HE 6.2.1; 230 HE 6.2.2; 405–406 HE 10.1.1; 408 HE 10.1.2; 411 HE 10.2.1; 413–414 HE 10.2.2; 415 HE 10.2.3; 417 HE 10.2.4; 419 HE 10.2.5; 421–422 HE 10.2.6; 425–426 HE 10.2.7; 431–432 AEK; 439–440 HE 11.1.1</p>
16	<p>Create new formulas to analyze data by calculating with, extracting from, presenting, and/or summarizing, including:</p> <p>a. Basic arithmetic calculations</p> <p>b. Basic mathematic (e.g., SUM, AVG, MIN, MAX) and text (e.g., LEN, LEFT, RIGHT, MID) functions</p> <p>c. Copying formulas that include both relative and absolute cell references</p> <p>d. Sorting in ascending/descending order</p> <p>e. Filtering data to retrieve specific values</p> <p>f. Basic conditional formatting (e.g., red for negative values)</p>	<p>Instruction: Pg. 235–237 Creating and Working with Lists; 404–405 Using Formulas; 419–420 Relative Cell Addresses; 420–421 Absolute Cell Addresses; 423 Sorting Data; 424 Filtering Data; 436–445 Calculating with Functions; 448–449 Conditional Formatting</p> <p>Application: Pg. 237 HE 6.3.1; 405–406 HE 10.1.1; 421–422 HE 10.2.6; 425–426 HE 10.2.7; 439–440 HE 11.1.1; 442 HE 11.1.2; 443–444 HE 11.1.3; 446 HE 11.1.4; 449–450 HE 11.2.1</p>
17	<p>Create and format for optimal clarity a variety of types of graphs and charts, including bar charts, line charts, pie charts, and X-Y graphs, based on tabulated data.</p>	<p>Instruction: Pg. 385–387 Creating Charts; 450–451 Charts</p> <p>Application: Pg. 387–389 HE 9.3.2; 452–453 HE 11.2.2</p>
18	<p>Retrieve a spreadsheet template (from those installed with the program or from the Internet) and customize it for a particular assignment approved by the instructor. For example, prepare a “timecard” of one’s daily hours spent on a month-long job assignment.</p>	<p>Instruction: Pg. 407–408 Updating Data</p> <p>Application: Pg. 425–426 HE 10.2.7; 432 AYK #4</p>

Database Applications		
19	Use a database program to interpret the structure of an existing database (found in teaching resources or teacher-created), identifying tables, fields, key fields, queries, forms, and reports.	Instruction: Pg. 462–500 Database Software Application: Pg. 469 HE 12.1.1; 469–470 HE 12.1.2; 471 HE 12.1.3; 474–475 HE 12.1.4; 479–480 HE 12.2.1; 482 HE 12.2.2; 483–484 HE 12.2.3; 485–486 HE 12.2.4; 490–491 HE 12.2.5; 494 HE 12.3.1; 496–497 HE 12.3.2; 498 HE 12.3.3; 499 HE 12.3.4; 500–501 HE 12.3.5
20	Using an existing database (found in teaching resources or teacher-created), create and run a database report based on basic queries. For example, retrieve the relevant information to answer a customer product inquiry during a mock customer service phone call.	Instruction: Pg. 484 Preparing a Report; 493 Creating a Basic Query Application: Pg. 485–486 HE 12.2.4; 494 HE 12.3.1
21	Using an existing database (found in teaching resources or teacher-created), create, modify, and perform basic queries through a form to create a new table/view in a database.	Instruction: Pg. 466 Tables; 482 Form; 493 Creating a Basic Query Application: Pg. 483–484 HE 12.2.3; 494 HE 12.3.1
Presentation Software		
22	Design, create, and deliver an oral presentation for a selected audience on a topic approved by the instructor. Using a specified slide number and duration, include the following elements: a. A selected theme (colors, background, fonts, etc.) b. Bulleted text based on a chosen style c. Photographs and other imagery d. Charts and graphs e. Video and animated graphics f. Animated transitions of slides and components within a slide Save the file in a format that can be transported and shared with the audience	Instruction: Pg. 225–231 Saving, Printing, and Opening Documents; 235–237 Creating and Working with Lists; 247–248 Styles; 346–392 Presentation Software Application: Pg. 356–357 HE 9.1.2; 358–360 HE 9.1.3; 361 HE 9.1.4; 364–365 HE 9.1.6; 368 HE 9.1.7; 372–373 HE 9.2.1; 374 HE 9.2.2; 375–376 HE 9.2.3; 377 HE 9.2.4; 378–379 HE 9.2.5; 380–381 HE 9.2.6; 384–385 HE 9.3.1; 387–389 HE 9.3.2; 390–391 HE 9.3.3; 392 HE 9.3.4; 395–396 AEK #1, 3–5; 396–397 Teamwork
23	Design, create, and deliver a self-running electronic slideshow for a selected audience on a topic approved by the instructor. Using a specified slide number and duration, include the following elements:	Instruction: Pg. 225–231 Saving, Printing, and Opening Documents; 235–237 Creating and Working with Lists; 247–248 Styles; 346–392 Presentation Software

	<p>a. A selected theme (colors, background, fonts, etc.)</p> <p>b. Photographs and other imagery</p> <p>c. Video and animated graphics</p> <p>d. Animated transitions of slides</p> <p>Save the file in a format that can be transported and shared with the audience.</p>	<p>Application: Pg. Pg. 356–357 HE 9.1.2; 358–360 HE 9.1.3; 361 HE 9.1.4; 364–365 HE 9.1.6; 368 HE 9.1.7; 372–373 HE 9.2.1; 374 HE 9.2.2; 375–376 HE 9.2.3; 377 HE 9.2.4; 378–379 HE 9.2.5; 380–381 HE 9.2.6; 384–385 HE 9.3.1; 387–389 HE 9.3.2; 390–391 HE 9.3.3; 392 HE 9.3.4; 395–396 AEK #1, 3–5; 396–397 Teamwork</p>
Digital Citizenship		
24	<p>Research, summarize, and deliver (via presentation, document, spreadsheet data/chart, or other format) a summary of the various perspectives and ramifications surrounding an ethical issue related to modern-day electronic communications, as approved by the instructor. Develop and strengthen claim(s) and counterclaim(s) about the issue, citing supportive evidence. Potential issues include spam, flaming, cyberbullying, libel, slander, and mining of personal data for profit.</p>	<p>Instruction: Pg. 346–392 Presentation Software; 450–451 Charts; 602 Spam; 613 Blogs; 622 Disadvantages of Social Media; 625–626 Cyberbullying; 659–660 Ethical Behavior in Cyberspace; 674–677 Preventing Threats from Public Intrusion</p> <p>Application: Pg. 626 HE 15.3.2; 661 HE 16.2.2; 680 CS Writing; 681 IR</p>
25	<p>Research, summarize, and deliver (via presentation, document, spreadsheet data/chart, or other format) a summary of the various perspectives and ramifications surrounding an ethical issue related to intellectual property rights, as approved by the instructor. Develop and strengthen claim(s) and counterclaim(s) about the issue, citing supportive evidence. Potential issues include copyright infringement, piracy, plagiarism, art licensing, creative commons, and the state/federal laws that govern them.</p>	<p>Instruction: Pg. 334–341 Ethical Practices for Intellectual Property; 346–392 Presentation Software; 450–451 Charts</p> <p>Application: Pg. 339 HE 8.3.1; 344 AEK #4</p>
26	<p>Explain, furnish examples, and demonstrate technical literacy with the following terms:</p> <p>a. The Internet, World Wide Web, and various browsers</p> <p>b. Network speeds, wireless communication, firewalls, and gateways</p>	<p>Instruction: Pg. 9 World Wide Web; 273 Tabs; 376 Creating a Hyperlink; 511–526 Internet; 663–664 Firewalls and Gateways</p> <p>Application: Pg. 377 HE 9.2.4; 513–514 HE 13.1.1; 523 HE 13.1.2</p>



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	c. Domains, hyperlinks, homepages, favorites/bookmarks, plugins, tabs, and downloads/uploads	
Electronic Communication and Collaboration		
27	Employ skills covered in this course (document processing, spreadsheet applications, electronic presentations, databases, Internet fluency) to complete a cross curricular project approved by the instructor.	Instruction: Pg. 266–287 Creating a Document; 346–392 Presentation Software; 401–403 Using Spreadsheets; 462–500 Database Software; 511–526 Internet Application: Pg. 300 AEK #3–5; 395–396 AEK #1, 3–5; 459–460 AEK; 460–461 IR; 503–504 AEK; 505 Teamwork; 551 AEK #1