<table>
<thead>
<tr>
<th>STANDARD</th>
<th>CORRELATING PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>The student demonstrates professional standards/employability as required by business and industry. The student is expected to:</td>
</tr>
<tr>
<td>(i)</td>
<td>Identify and demonstrate work behaviors and qualities that enhance employability and job advancement such as regular attendance, attention to proper attire, maintenance of a clean and safe work environment, and pride in work, flexibility, and initiative;</td>
</tr>
<tr>
<td>(ii)</td>
<td>Identify work behaviors that enhance employability;</td>
</tr>
<tr>
<td>(iii)</td>
<td>Identify work behaviors that enhance job advancement;</td>
</tr>
<tr>
<td>(iv)</td>
<td>Identify qualities that enhance employability;</td>
</tr>
<tr>
<td>(v)</td>
<td>Identify qualities that enhance job advancement;</td>
</tr>
<tr>
<td>(vi)</td>
<td>Demonstrate work behaviors that enhance employability;</td>
</tr>
<tr>
<td>(vii)</td>
<td>Demonstrate work behaviors that enhance job advancement;</td>
</tr>
<tr>
<td>(viii)</td>
<td>Demonstrate qualities that enhance employability;</td>
</tr>
<tr>
<td>(vii)</td>
<td>Demonstrate qualities that enhance job advancement;</td>
</tr>
<tr>
<td>(B)</td>
<td>Employ effective verbal and nonverbal communication skills;</td>
</tr>
<tr>
<td>(ii)</td>
<td>employ effective nonverbal communication skills;</td>
</tr>
<tr>
<td>(C)</td>
<td>employ effective reading and writing skills;</td>
</tr>
<tr>
<td>(i)</td>
<td>employ effective reading skills;</td>
</tr>
<tr>
<td>(ii)</td>
<td>employ effective writing skills;</td>
</tr>
<tr>
<td>(D)</td>
<td>solve problems and think critically;</td>
</tr>
<tr>
<td>(i)</td>
<td>solve problems;</td>
</tr>
<tr>
<td>(ii)</td>
<td>think critically;</td>
</tr>
<tr>
<td>(E)</td>
<td>demonstrate leadership skills and function effectively as a team member;</td>
</tr>
<tr>
<td>(i)</td>
<td>demonstrate leadership skills;</td>
</tr>
<tr>
<td>(ii)</td>
<td>function effectively as a team member;</td>
</tr>
<tr>
<td>(F)</td>
<td>identify and implement proper safety procedures; and</td>
</tr>
<tr>
<td>(i)</td>
<td>identify proper safety procedures;</td>
</tr>
<tr>
<td>(ii)</td>
<td>implement proper safety procedures; and</td>
</tr>
<tr>
<td>(G)</td>
<td>demonstrate planning and time-management skills such as storyboarding and project management, including initiating, planning, executing, monitoring and controlling, and closing a project.</td>
</tr>
</tbody>
</table>
Activity: Pg. 729 Chapter 17 Test #3, 8; Pg. 730 Application and Extension of Knowledge #4

(ii) demonstrate time-management skills.

Narrative: Pg. 690 Project Management; Pg. 702–703 Time-Management and Team Skills
Activity: Pg. 729 Chapter 17 Test #2, 8; Pg. 730 Application and Extension of Knowledge #5

Standard (2) The student identifies various employment opportunities in the IT field. The student is expected to:

(A) identify job opportunities and accompanying job duties and tasks;

(i) identify job opportunities;

Narrative: Pg. 689–698 Employment Areas Affected by IT Innovations
Activity: Pg. 699 Hands-on Example 17.1.2; Pg. 700 Check Your Understanding #1, 3; Pg. 729 Application and Extension of Knowledge #1

(ii) Identify [job opportunities] accompanying job duties;

Narrative: Pg. 689–698 Employment Areas Affected by IT Innovations
Activity: Pg. 699 Hands-on Example 17.1.2; Pg. 700 Check Your Understanding #2, 4, 5; Pg. 730 Application and Extension of Knowledge #4

(B) research careers of personal interest along with the education, job skills, and experience required to achieve personal career goals; and

(i) research careers of personal interest;

Narrative: Pg. 689–698 Employment Areas Affected by IT Innovations; Pg. 708–715 Researching a Career
Activity: Pg. 699 Hands-on Example 17.1.2; Pg. 700 Check Your Understanding #1–5; Pg. 727 Check Your Understanding #2; Pg. 729 Chapter 17 Test #9; Pg. 730 Application and Extension of Knowledge #3

(ii) research the education required to achieve personal career goals;

Narrative: Pg. 692–698 Careers Available in IT; Pg. 715–717 Education
Activity: Pg. 727 Check Your Understanding #3; Pg. 729 Chapter 17 Test #3, 9; Pg. 730 Application and Extension of Knowledge #3

(iii) research the job skills required to achieve personal career goals;

Narrative: Pg. 689–698 Employment Areas Affected by IT Innovations; Pg. 708–715 Researching a Career
Activity: Pg. 700 Check Your Understanding #2, 4, 5; Pg. 727 Check Your Understanding #1, 2; Pg. 729 Chapter 17 Test #2, 4; Pg. 730 Application and Extension of Knowledge #4

(iv) research the experience required to achieve personal career goals; and

Narrative: Pg. 689–698 Employment Areas Affected by IT Innovations; Pg. 708–709 Career Plan; Pg. 718–720 Training and Experience
Activity: Pg. 700 Check Your Understanding #2, 4, 5; Pg. 727 Check Your Understanding #1, 2; Pg. 729 Chapter 17 Test #3, 9; Pg. 730 Application and Extension of Knowledge #4

(C) describe the functions of résumés and portfolios.

(i) describe functions of résumés.

Narrative: Pg. 722–726 Résumé and Portfolio
Activity: Pg. 726 Hands-on Example 17.2.3; Pg. 727 Check Your Understanding #4; Pg. 727 IC3 Certification Practice; Pg. 730 Application and Extension of Knowledge #2

(ii) describe functions of portfolios.

Narrative: Pg. 722 Résumé and Portfolio; Pg. 726 Creating a Portfolio
Activity: Pg. 681 Portfolio Development: Organizing Your Portfolio; Pg. 727 Check Your Understanding #5; Pg. 731 Portfolio Development: Presenting Your Portfolio; Portfolio Development activities at end of every chapter

Standard (3) The student uses evolving and emerging technologies to exchange information. The student is expected to:

(A) identify and describe functions of various evolving and emerging technologies;

(i) identify functions of various evolving technologies;

Narrative: Pg. 13–15 Emerging Technologies
Activity: Pg. 19 Check Your Understanding #4; Pg. 31

Texas 3
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(ii)</td>
<td>identify functions of various emerging technologies;</td>
<td>Narrative: Pg. 15–16 New and Emerging Classes of Software Activity: Pg. 19 Check Your Understanding #5; Pg. 31 Chapter 1 Test #4, 13; Pg. 32 Application and Extension of Knowledge #2</td>
</tr>
<tr>
<td>(iii)</td>
<td>describe functions of various evolving technologies;</td>
<td>Narrative: Pg. 13–15 Emerging Technologies Activity: Pg. 19 Check Your Understanding #4; Pg. 31 Chapter 1 Test #3, 12; Pg. 32 Application and Extension of Knowledge #2</td>
</tr>
<tr>
<td>(iv)</td>
<td>describe functions of various emerging technologies;</td>
<td>Narrative: Pg. 15–16 New and Emerging Classes of Software Activity: Pg. 19 Check Your Understanding #5; Pg. 31 Chapter 1 Test #4, 13; Pg. 32 Application and Extension of Knowledge #2</td>
</tr>
</tbody>
</table>

(B) send and receive text information and file attachments using electronic methods such as email, electronic bulletin boards, and instant message services;

(i) send text information using electronic methods; | Narrative: Pg. 593–598 Appropriate E-mail Use Activity: Pg. 633 Chapter 15 Test #1, 5, 14; Pg. 634 Application and Extension of Knowledge #1; Pg. 634 Internet Research: E-mail |

(ii) send file attachments using electronic methods; | Narrative: Pg. 596 Figure 15-4; Pg. 597 Attachments Activity: Pg. 604 Check Your Understanding #4; Pg. 633 Chapter 15 Test #6; Pg. 633 Application and Extension of Knowledge #1; Pg. 634 Internet Research: E-mail |

(iii) receive text information using electronic methods; | Narrative: Pg. 593–598 Appropriate E-mail Use Activity: Pg. 633 Chapter 15 Test #1, 7; Pg. 633 Application and Extension of Knowledge #1; Pg. 634 Internet Research: E-mail |

(iv) receive file attachments using electronic methods; | Narrative: Pg. 597 Attachments Activity: Pg. 633 Chapter 15 Test #3; Pg. 634 Internet Research: E-mail Attachments |

(C) demonstrate effective Internet search strategies, including keywords and Boolean logic, using various available search engines;

(i) demonstrate effective Internet search strategies, including keywords, using various available search engines; | Narrative: Pg. 527–531 Using Search Engines Activity: Pg. 532 Check Your Understanding #4; Pg. 550 Chapter 13 Test #3; Pg. 551 Chapter 13 Test #8; Pg. 553 Internet Research: Boolean Searches |

(ii) demonstrate effective Internet search strategies, including Boolean logic, using various available search engines; | Narrative: Pg. 527–531 Using Search Engines Activity: Pg. 532 Check Your Understanding #4; Pg. 550 Chapter 13 Test #3; Pg. 551 Chapter 13 Test #8; Pg. 553 Internet Research: Boolean Searches |

(D) (i) identify the various components of a Uniform Resource Locator; | Narrative: Pg. 512–513 Internet Protocol; Pg. 516–518 Uniform Resource Locator Activity: Pg. 532 IC3 Certification Practice; Pg. 551 Chapter 13 Test #6; Pg. 551 Application and Extension of Knowledge #3 |

(E) demonstrate ability to effectively test acquired information from the Internet for accuracy, relevance, and validity;

(i) demonstrate ability to effectively test acquired information from the Internet for accuracy; | Narrative: Pg. 528–530 Evaluating Results Activity: Pg. 550 Chapter 13 Test #3; Pg. 551 Chapter 13 Test #8; Pg. 551 Application and Extension of Knowledge #1, 2 |

(ii) demonstrate ability to effectively test acquired information from the Internet for relevance; | Narrative: Pg. 528–530 Evaluating Results Activity: Pg. 550 Chapter 13 Test #3; Pg. 551 Chapter 13 Test #8; Pg. 551 Application and Extension of Knowledge #1, 2 |
<table>
<thead>
<tr>
<th>Standard</th>
<th>The student demonstrates knowledge of the hardware components associated with information systems. The student is expected to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>identify major hardware components and their functions;</td>
</tr>
<tr>
<td>(i)</td>
<td>identify major hardware components;</td>
</tr>
<tr>
<td>(ii)</td>
<td>identify [major hardware components’] functions;</td>
</tr>
<tr>
<td>(B)</td>
<td>use available reference tools as appropriate;</td>
</tr>
<tr>
<td>(i)</td>
<td>use available reference tools as appropriate;</td>
</tr>
<tr>
<td>(C)</td>
<td>connect and use a variety of peripheral devices such as mouse, keyboard, microphone, digital camera, and printer.</td>
</tr>
<tr>
<td>(i)</td>
<td>connect and use a variety of peripheral devices.</td>
</tr>
<tr>
<td>(ii)</td>
<td>use a variety of peripheral devices.</td>
</tr>
</tbody>
</table>

Standard (5) The student demonstrates knowledge of the different software associated with information systems. The student is expected to:
| (A) (i) | differentiate between systems and application software; | Narrative: Pg. 93–107 Section 3.2 System Software; Pg. 109–127 Section 3.3 Application Software Activity: Pg. 108 Check Your Understanding #1–5; Pg. 127 Check Your Understanding #1–5; Pg. 129 Chapter 3 Test #4, 5, 7–10; Pg. 130 Application and Extension of Knowledge #5 |
| (B) | identify and explain major operating system fundamentals and components such as disk operations, graphical user interface components, and hardware drivers; | |
| (i) | identify major operating system fundamentals; | Narrative: Pg. 93–107 Section 3.2 System Software Activity: Pg. 104–105 Hands-on Example 3.2.3; Pg. 108 Check Your Understanding #1–5; Pg. 127 IC3 Certification Practice; Pg. 129 Chapter 3 Test #4, 8, 12 |
| (ii) | identify major operating system components; | Narrative: Pg. 93–107 Section 3.2 System Software Activity: Pg. 104–105 Hands-on Example 3.2.3; Pg. 108 Check Your Understanding #1–5; Pg. 127 IC3 Certification Practice; Pg. 129 Chapter 3 Test #4, 8, 12 |
| (iii) | explain major operating system fundamentals; | Narrative: Pg. 93–107 Section 3.2 System Software Activity: Pg. 104–105 Hands-on Example 3.2.3; Pg. 108 Check Your Understanding #1–5; Pg. 127 IC3 Certification Practice; Pg. 129 Chapter 3 Test #4, 8, 12 |
| (iv) | explain major operating system components; | Narrative: Pg. 93–107 Section 3.2 System Software Activity: Pg. 104–105 Hands-on Example 3.2.3; Pg. 108 Check Your Understanding #1–5; Pg. 127 IC3 Certification Practice; Pg. 129 Chapter 3 Test #4, 8, 12 |
| (C) (i) | explain the purpose of file types across software products; | Narrative: Pg. 138–139 File Name Extensions; Pg. 139 Figure 4-5 Activity: Pg. 145 Hands-on Example 4.1.2; Pg. 148 Check Your Understanding #1, 5; Pg. 174 Application and Extension of Knowledge #3 |
| (D) | demonstrate use of computer numbering systems and internal data representation such as identifying the hexadecimal value of a color; | |
| (i) | demonstrate use of computer numbering systems; | Narrative: Pg. 83–89 Number Systems Activity: Pg. 86 Hands-on Example 3.1.1; Pg. 92 Check Your Understanding #1, 2, 3; Pg. 128–129 Chapter 3 Test #2, 6, 11; Pg. 129 Application and Extension of Knowledge #1 |
| (ii) | demonstrate use of internal data representation; | Narrative: Pg. 83–89 Number Systems Activity: Pg. 86 Hands-on Example 3.1.1; Pg. 92 Check Your Understanding #1, 2, 3; Pg. 128–129 Chapter 3 Test #2, 6, 11; Pg. 129 Application and Extension of Knowledge #1 |
| (E) (i) | compare and contrast open source and proprietary software; | Narrative: Pg. 110–111 Licenses Activity: Pg. 127 Check Your Understanding #1; Pg. 129 Chapter 3 Test #5, 9; Pg. 130 Application and Extension of Knowledge #4 |
| (F) (i) | explain use of system management tools; | Narrative: Pg. 104 System Utility Programs Activity: Pg. 104–105 Hands-on Example 3.2.3; Pg. 108 Check Your Understanding #3; Pg. 129 Application and Extension of Knowledge #3; Pg. 130 Internet Research: Personal Information Management (PIM) |
| (G) (i) | apply proper file management techniques such as creating, naming, organizing, copying, moving, and deleting files; | Narrative: Pg. 157–162 Copying and Moving Files and Folders Activity: Pg. 160–161 Hands-On Example 4.3.1; Pg. 162 Check Your Understanding #3–5 |
| (H) | use appropriate file protection and security; and | |
| (i) | use appropriate file protection; | Narrative: Pg. 166 Security Tab; Pg. 254 Protected Views Activity: Pg. 171 Check Your Understanding #3; Pg. 173 Chapter 4 Test #10; Pg. 259 Check Your Understanding #3; Pg. 261 Chapter 6 Test #12 |
(ii) use appropriate file security; and
Narrative: Pg. 166 Security Tab; Pg. 254 Protected Views
Activity: Pg. 171 Check Your Understanding #3; Pg. 173 Chapter 4 Test #10; Pg. 259 Check Your Understanding #3; Pg. 261 Chapter 6 Test #12

(I) explain the process for discovering, quarantining, and removing viruses from a computer system.

(i) explain the process for discovering viruses.
Narrative: Pg. 648 Defending Against Cyber Attacks; Pg. 670 Keep Antivirus Software Updated, first paragraph, last sentence
Activity: Pg. 648–649 Hands-On Example 16.1.2 #3–4

(ii) explain the process for quarantining viruses.
Narrative: Pg. 648–649 Hands-On Example 16.1.2; Pg. 649 Check Your Understanding #1; Pg. 677 Check Your Understanding #3

(iii) explain the process for removing viruses from a computer system.
Narrative: Pg. 648 Defending Against Cyber Attacks
Activity: Pg. 649 Hands-On Check Your Understanding #5

Standard (6) The student analyzes network systems. The student is expected to:

(A) identify hardware associated with telecommunications and data networking such as servers, routers, switches, and network connectors;

(i) identify hardware associated with telecommunications;
Narrative: Pg. 558–563 Network Connection Technologies
Activity: Pg. 564 Hands-on Example 14.1.1; Pg. 565 Check Your Understanding #2, 3, 4, 5; Pg. 565 IC3 Certification Practice; Pg. 582–583 Chapter 14 Test #1, 2, 7, 12, 13

(ii) identify hardware associated with data networking;
Narrative: Pg. 558–563 Network Connection Technologies
Activity: Pg. 564 Hands-on Example 14.1.1; Pg. 565 Check Your Understanding #2, 3, 4, 5; Pg. 565 IC3 Certification Practice; Pg. 582–583 Chapter 14 Test #1, 2, 7, 12, 13

(B) identify and describe various types of networks such as peer-to-peer, local area networks, wide area networks, wireless and Ethernet;

(i) identify various types of networks;
Narrative: Pg. 567–570 Network Types
Activity: Pg. 570 Hands-on Example 14.2.1; Pg. 571 Check Your Understanding #1, 2, 3; Pg. 583 Chapter 14 Test #8, 15

(ii) describe various types of networks;
Narrative: Pg. 567–570 Network Types
Activity: Pg. 570 Hands-on Example 14.2.1; Pg. 571 Check Your Understanding #1, 2, 3; Pg. 583 Chapter 14 Test #8, 15

(C) identify functions of network operating systems; and

(i) identify functions of network operating systems;
Narrative: Pg. 562 Server Operating System
Activity: Pg. 565 Check Your Understanding #5; Pg. 570 Hands-on Example 14.2.1; Pg. 582 Chapter 14 Test #2; Pg. 583 Application and Extension of Knowledge #1

(D) explain troubleshooting techniques for various network connection issues.
Narrative: Pg. 579–580 Network Troubleshooting
Activity: Pg. 576 Hands-on Example 14.3.1; Pg. 580 Hands-on Example 14.3.3; Pg. 581 Check Your Understanding #5; Pg. 583 Chapter 14 Test #5

Standard (7) The student applies word-processing technology. The student is expected to:

(A) identify the terminology associated with word-processing software;
Narrative: Pg. 264–296 Chapter 7 Word-Processing Software; Pg. 304–314 Section 8.1 Creating a Business Letter; Pg. 318–331 Creating a Report, Formatting a Report
Activity: Pg. 288 Check Your Understanding #1–5; Pg. 297 Check Your Understanding #1–5; Pg. 299 Chapter 7 Test #11–15; Pg. 312 Hands-on Example 8.1.1; Pg. 314–316 Hands-on Example 8.1.2; Pg. 316 Check Your Understanding #1–5; Pg. 333 Check Your Understanding #1–5; Pg. 343 Chapter 8 Test #11–15

(B) edit a variety of text documents using functions such as pagination, appropriate white space, tab settings, and font
Narrative: Pg. 304–314 Section 8.1 Creating a Business Letter; Pg. 317–331 Section 8.2 Creating a Report
| Style, size, and color; and | Activity: Pg. 268–269 Hands-on Example 7.1.1; Pg. 270–271 Hands-on Example 7.1.2; Pg. 273 Hands-on Example 7.1.3; Pg. 275 Hands-on Example 7.1.4; Pg. 277–278 Hands-on Example 7.1.5; Pg. 279 Hands-on Example 7.1.6; Pg. 312 Hands-on Example 8.1.1; Pg. 314–316 Hands-on Example 8.1.2; Pg. 316 Check Your Understanding #4, 5; Pg. 327 Hands-on Example 8.2.1; Pg. 328–329 Hands-on Example 8.2.2; Pg. 333 Check Your Understanding #1–5

(C) (i) create professional documents using advanced word-processing features such as memorandums, technical manuals, or proposals. | Narrative: Pg. 304–314 Section 8.1 Creating a Business Letter; Pg. 317–331 Section 8.2 Creating a Report Activity: Pg. 268–269 Hands-on Example 7.1.1; Pg. 270–271 Hands-on Example 7.1.2; Pg. 273 Hands-on Example 7.1.3; Pg. 275 Hands-on Example 7.1.4; Pg. 277–278 Hands-on Example 7.1.5; Pg. 279 Hands-on Example 7.1.6; Pg. 312 Hands-on Example 8.1.1; Pg. 314–316 Hands-on Example 8.1.2; Pg. 316 Check Your Understanding #4, 5; Pg. 327 Hands-on Example 8.2.1; Pg. 328–329 Hands-on Example 8.2.2; Pg. 333 Check Your Understanding #1–5

Standard (8) The student applies spreadsheet technology. The student is expected to:

(A) (i) identify the terminology associated with spreadsheet software; | Narrative: Pg. 400–408 Section 10.1 Introduction to Spreadsheets; Pg. 409–429 Section 10.2 Managing Data in Spreadsheets Activity: Pg. 408 Check Your Understanding #1–5; Pg. 429 Check Your Understanding #1–5; Pg. 430–431 Chapter 10 Test #1–15

(B) (i) use numerical content to perform mathematical calculations; | Narrative: Pg. 404–405 Using Formulas; Pg. 419–421 Rearranging Data; Pg. 436–445 Section 11.1 Calculating with Functions Activity: Pg. 405–406 Hands-on Example 10.1.1; Pg. 421–422 Hands-on Example 10.2.6; Pg. 429 Check Your Understanding #3; Pg. 431 Chapter 10 Test #4; Pg. 439–440 Hands-on Example 11.1.1

(C) use student-created and preprogrammed functions to produce documents such as budget, payroll, statistical tables, and personal checkbook register;

(i) use student-created functions to produce documents; | Narrative: Pg. 444–445 Logical Functions Activity: Pg. 446 Hands-on Example 11.1.4; Pg. 446 Check Your Understanding #1–5; Pg. 458–459 Chapter 11 Test #1, 2, 3; Pg. 459 Chapter 11 Test #12, 13, 14

(ii) use preprogrammed functions to produce documents; | Narrative: Pg. 437–443 Using Functions Activity: Pg. 439–440 Hands-on Example 11.1.1; Pg. 442 Hands-on Example 11.1.2; Pg. 443–444 Hands-on Example 11.1.3; Pg. 446 Check Your Understanding #1, 2, 3

(D) identify, generate and describe the function of comma separated value files;

(i) identify comma separated value files; | Narrative: Pg. 456–457 Comma-Separated Values Files; Pg. 457 Figure 11-10 Activity: Pg. 457 Check Your Understanding #5; Pg. 459 Chapter 11 Test #5; Pg. 460 Application and Extension of Knowledge #5

(ii) generate comma separated value files; | Narrative: Pg. 456–457 Comma-Separated Values Files; Pg. 457 Figure 11-10 Activity: Pg. 457 Check Your Understanding #5; Pg. 459 Chapter 11 Test #5; Pg. 460 Application and Extension of Knowledge #5

(iii) describe the function of comma separated value files; | Narrative: Pg. 456–457 Comma-Separated Values Files; Pg. 457 Figure 11-10 Activity: Pg. 457 Check Your Understanding #5; Pg. 459 Chapter 11 Test #5; Pg. 460 Application and Extension of Knowledge #5
<table>
<thead>
<tr>
<th>Knowledge #5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(E) create and analyze spreadsheets incorporating advanced features such as lookup tables, nested IF statements, subtotals, cell protection conditional formatting, charts, and graphs; and</td>
<td>Narratives: Pg. 444–445 Logical Functions; Pg. 448–449 Conditional Formatting; Pg. 450–451 Charts; Pg. 456 Tables Activity: Pg. 446 Hands-on Example 11.1.4; Pg. 446 Check Your Understanding #4, 5; Pg. 449–450 Hands-on Example 11.2.1; Pg. 452–453 Hands-on Example 11.2.2; Pg. 455 Hands-on Example 11.2.3; Pg. 457 Check Your Understanding #1, 2, 3, 4; Pg. 458–459 Chapter 11 Test #2, 3, 4</td>
</tr>
<tr>
<td>(i) create spreadsheets incorporating advanced features;</td>
<td></td>
</tr>
<tr>
<td>(ii) analyze spreadsheets incorporating advanced features; and</td>
<td></td>
</tr>
<tr>
<td>(F) perform sorting, searching, and data filtering in documents.</td>
<td></td>
</tr>
<tr>
<td>(i) perform sorting in documents.</td>
<td>Narrative: Pg. 423 Sorting Data; Pg. 423 Figure 10-15 Activity: Pg. 425–426 Hands-on Example 10.2.7; Pg. 429 Check Your Understanding #4</td>
</tr>
<tr>
<td>(ii) perform searching in documents.</td>
<td>Narrative: Pg. 422–423 Finding Data; Pg. 423 Figure 10-14 Activity: Pg. 425–426 Hands-on Example 10.2.7; Pg. 429 Check Your Understanding #4; Pg. 431 Chapter 10 Test #10</td>
</tr>
<tr>
<td>(iii) perform data filtering in documents.</td>
<td>Narrative: Pg. 424 Filtering Data; Pg. 424 Figure 10-16 Activity: Pg. 425–426 Hands-on Example 10.2.7; Pg. 429 Check Your Understanding #4; Pg. 431 Chapter 10 Test #5</td>
</tr>
</tbody>
</table>

**Standard (9) The student explores computer programming concepts. The student is expected to:**

**A** identify the function of compilers and interpreters;

| (i) identify the function of compilers; | Narrative: Pg. 90 paragraph 1 Activity: Pg. 92 Check Your Understanding #3, 4; Pg. 128 Chapter 3 Test #1; Pg. 129 Application and Extension of Knowledge #2 |
| (ii) identify the function of interpreters; | Narrative: Pg. 90 paragraph 2 Activity: Pg. 92 Check Your Understanding #3, 4; Pg. 128 Chapter 3 Test #1; Pg. 129 Application and Extension of Knowledge #2 |

**B (i) explain the difference between the operation of compilers and interpreters;**

| Narrative: Pg. 90 paragraphs 1–2 Activity: Pg. 92 Check Your Understanding #3, 4; Pg. 128 Chapter 3 Test #1; Pg. 129 Application and Extension of Knowledge #2 |

**C** identify various computer languages and how the languages are used in software development;

| (i) identify various computer languages; | Narrative: Pg. 89–91 Computer-Programming Languages Activity: Pg. 92 Check Your Understanding #3, 4, 5; Pg. 128 Chapter 3 Test #1; Pg. 129 Chapter 3 Test #3, 7 |
| (ii) identify how the [computer] languages are used in software development; | Narrative: Pg. 89–91 Computer-Programming Languages Activity: Pg. 92 Check Your Understanding #3, 4, 5; Pg. 128 Chapter 3 Test #1; Pg. 129 Chapter 3 Test #3, 7 |

**D (i) recognize data representation in software development such as string, numeric, character, integer, and date;**

| Narrative: Pg. 91 Data Types Used in Computer Programming; Pg. 403–404 Entering Data Activity: Pg. 128 Chapter 3 Test #2; Pg. 408 Check Your Understanding #3; Pg. 431 Chapter 10 Test #2 |

**E** identify and explain the concept of algorithms; and

| (i) identify algorithms; | Narrative: Pg. 91 Algorithms; Pg. 575 Wireless Network Security Types |
### Standard (10) The student explores database technology. The student is expected to:

**(A)** identify the terminology associated with database software and database functions;

- **(i)** identify the terminology associated with database software;
  - Narrative: Pg. 462–500 Chapter 12 Database Software
  - Activity: Pg. 476 Check Your Understanding #1–5; Pg. 491 Check Your Understanding #1–5; Pg. 501 Check Your Understanding #1–5; Pg. 502–503 Chapter 12 Test #1–15

- **(ii)** identify the terminology associated with database functions;
  - Narrative: Pg. 462–500 Chapter 12 Database Software
  - Activity: Pg. 476 Check Your Understanding #1–5; Pg. 491 Check Your Understanding #1–5; Pg. 501 Check Your Understanding #1–5; Pg. 502–503 Chapter 12 Test #1–15

**(B) (i)** explore the application of databases;

- Narrative: Pg. 468–474 Examining a Database
  - Activity: Pg. 469 Hands-on Example 12.1.1; Pg. 469–470 Hands-on Example 12.1.2; Pg. 471 Hands-on Example 12.1.3; Pg. 474–475 Hands-on Example 12.1.4; Pg. 476 Check Your Understanding #1–5

**(C)** identify and explain the purpose and elements of a query language;

- **(i)** identify the purpose of a query language;
  - Narrative: Pg. 493–498 Locating Data
    - Activity: Pg. 494 Hands-on Example 12.3.1; Pg. 496–497 Hands-on Example 12.3.2; Pg. 498 Hands-on Example 12.3.3; Pg. 501 Check Your Understanding #1, 2, 3

- **(ii)** identify the elements of a query language;
  - Narrative: Pg. 493–498 Locating Data
    - Activity: Pg. 494 Hands-on Example 12.3.1; Pg. 496–497 Hands-on Example 12.3.2; Pg. 498 Hands-on Example 12.3.3; Pg. 501 Check Your Understanding #1, 2, 3

- **(iii)** explain the purpose of a query language;
  - Narrative: Pg. 493–498 Locating Data
    - Activity: Pg. 494 Hands-on Example 12.3.1; Pg. 496–497 Hands-on Example 12.3.2; Pg. 498 Hands-on Example 12.3.3; Pg. 501 Check Your Understanding #1, 2, 3

- **(iv)** explain the elements of a query language;
  - Narrative: Pg. 493–498 Locating Data
    - Activity: Pg. 494 Hands-on Example 12.3.1; Pg. 496–497 Hands-on Example 12.3.2; Pg. 498 Hands-on Example 12.3.3; Pg. 501 Check Your Understanding #1, 2, 3

**(D)** identify and explain the purpose of fields and records; and

- **(i)** identify the purpose of fields;
  - Narrative: Pg. 467 Fields
    - Activity: Pg. 469 Hands-on Example 12.1.1; Pg. 469–470 Hands-on Example 12.1.2; Pg. 471 Hands-on Example 12.1.3; Pg. 474–475 Hands-on Example 12.1.4; Pg. 476 Check Your Understanding #4, 5; Pg. 502 Chapter 12 Test #1

- **(ii)** identify purpose of records;
  - Narrative: Pg. 466 Records

---

Texas 10
### Standard (11) The student applies presentation management technology. The student is expected to:

**A** identify the terminology and functions of presentation software; and

| (i) | identify the terminology of presentation software; | Narrative: Pg. 348–368 Section 9.1 Creating a Professional Presentation; Pg. 370–380 Section 9.2 Adding Transitions and Animations; Pg. 382–392 Section 9.3 Charts, Tables, and Handouts Activity: Pg. 369 Check Your Understanding #1–5; Pg. 381 Check Your Understanding #1–5; Pg. 393 Check Your Understanding #1–5; Pg. 395 Chapter 9 Test #11–15 |
| (ii) | identify the functions of presentation software; and | Narrative: Pg. 348–368 Section 9.1 Creating a Professional Presentation; Pg. 370–380 Section 9.2 Adding Transitions and Animations; Pg. 382–392 Section 9.3 Charts, Tables, and Handouts Activity: Pg. 369 Check Your Understanding #1–5; Pg. 381 Check Your Understanding #1–5; Pg. 393 Check Your Understanding #1–5; Pg. 395 Chapter 9 Test #11–15 |

**B** create, save, edit, and produce presentations incorporating advanced features such as links, hyperlinks, audio and graphics.

| (i) | create presentations incorporating advanced features. | Narrative: Pg. 370–380 Section 9.2 Adding Transitions and Animations Activity: Pg. 372–373 Hands-on Example 9.2.1; Pg. 374 Hands-on Example 9.2.2; Pg. 375–376 Hands-on Example 9.2.3; Pg. 377 Hands-on Example 9.2.4; Pg. 378–379 Hands-on Example 9.2.5; Pg. 380–381 Hands-on Example 9.2.6; Pg. 381 Check Your Understanding #1–5; Pg. 395 Chapter 9 Test #3–5, 8–10, 11–14 |
| (ii) | save presentations incorporating advanced features. | Narrative: Pg. 370–380 Section 9.2 Adding Transitions and Animations Activity: Pg. 372–373 Hands-on Example 9.2.1; Pg. 374 Hands-on Example 9.2.2; Pg. 375–376 Hands-on Example 9.2.3; Pg. 377 Hands-on Example 9.2.4; Pg. 378–379 Hands-on Example 9.2.5; Pg. 380–381 Hands-on Example 9.2.6; Pg. 381 Check Your Understanding #1–5; Pg. 395 Chapter 9 Test #3–5, 8–10, 11–14 |
| (iii) | edit presentations incorporating advanced features. | Narrative: Pg. 370–380 Section 9.2 Adding Transitions and Animations Activity: Pg. 372–373 Hands-on Example 9.2.1; Pg. 374 Hands-on Example 9.2.2; Pg. 375–376 Hands-on Example 9.2.3; Pg. 377 Hands-on Example 9.2.4; Pg. 378–379 Hands-on Example 9.2.5; Pg. 380–381 Hands-on Example 9.2.6; Pg. 381 Check Your Understanding #1–5; Pg. 395 Chapter 9 Test #3–5, 8–10, 11–14 |
| iv) | produce presentations incorporating advanced features. | Narrative: Pg. 370–380 Section 9.2 Adding Transitions and Animations  
Activity: Pg. 372–373 Hands-on Example 9.2.1; Pg. 374 Hands-on Example 9.2.2; Pg. 375–376 Hands-on Example 9.2.3; Pg. 377 Hands-on Example 9.2.4; Pg. 378–379 Hands-on Example 9.2.5; Pg. 380–381 Hands-on Example 9.2.6; Pg. 381 Check Your Understanding #1–5; Pg. 395 Chapter 9 Test #3–5, 8–10, 11–14 |
|---|---|---|

Standard (12) The student applies design and web publishing techniques. The student is expected to:

(A) identify the terminology associated with web page development and interactive media;

(i) identify the terminology associated with web page development;

Narrative: Pg. 533–549 Section 13.2 Creating for the Web  
Activity: Pg. 540–541 Hands-on Example 13.2.2; Pg. 545 Hands-on Example 13.2.3; Pg. 548 Hands-on Example 13.2.4; Pg. 549 Check Your Understanding #1–5; Pg. 550–551 Chapter 13 Test #4, 5, 9, 10; Pg. 551–552 Application and Extension of Knowledge #3, 4, 5

(ii) identify the terminology associated with interactive media;

Narrative: Pg. 537–547 HTML  
Activity: Pg. 548 Hands-on Example 13.2.4; Pg. 549 Check Your Understanding #2, 3, 4

(B) identify and explain design elements such as typeface, color, shape, texture, space and form;

(i) identify design elements;

Narrative: Pg. 534–535 Designing for the Web  
Activity: Pg. 536–537 Hands-on Example 13.2.1; Pg. 549 Check Your Understanding #1; Pg. 551 Application and Extension of Knowledge #3; Pg. 553 Teamwork

(ii) explain design elements;

Narrative: Pg. 534–535 Designing for the Web  
Activity: Pg. 536–537 Hands-on Example 13.2.1; Pg. 549 Check Your Understanding #1; Pg. 551 Application and Extension of Knowledge #3; Pg. 553 Teamwork

(C) identify and explain design principles such as unity, harmony, balance, scale and contrast;

(i) identify design principles;

Narrative: Pg. 534–535 Designing for the Web  
Activity: Pg. 536–537 Hands-on Example 13.2.1; Pg. 549 Check Your Understanding #1; Pg. 551 Application and Extension of Knowledge #3; Pg. 553 Teamwork

(ii) explain design principles;

Narrative: Pg. 534–535 Designing for the Web  
Activity: Pg. 536–537 Hands-on Example 13.2.1; Pg. 549 Check Your Understanding #1; Pg. 551 Application and Extension of Knowledge #3; Pg. 553 Teamwork

(D) identify and explain common elements of Hyper Text Markup Language (HTML) such as tags, style sheets, and hyperlinks; and

(i) identify common elements of HTML;

Narrative: Pg. 537–549 HTML  
Activity: Pg. 540–541 Hands-on Example 13.2.2; Pg. 545 Hands-on Example 13.2.3; Pg. 548 Hands-on Example 13.2.4; Pg. 549 Check Your Understanding #1–5; Pg. 550–551 Chapter 13 Test #4, 5, 9, 10; Pg. 551–552 Application and Extension of Knowledge #3, 4, 5

(ii) explain common elements of HTML; and

Narrative: Pg. 537–549 HTML  
Activity: Pg. 540–541 Hands-on Example 13.2.2; Pg. 545 Hands-on Example 13.2.3; Pg. 548 Hands-on Example 13.2.4; Pg. 549 Check Your Understanding #1–5; Pg. 550–551 Chapter 13 Test #4, 5, 9, 10; Pg. 551–552 Application and Extension of Knowledge #3, 4, 5

(E) (i) create a web page containing links, graphics, and text using

Narrative: Pg. 537–549 HTML
appropriate design principles.

Activity: Pg. 540–541 Hands-on Example 13.2.2; Pg. 545 Hands-on Example 13.2.3; Pg. 548 Hands-on Example 13.2.4; Pg. 549 Check Your Understanding #1–5; Pg. 550–551 Chapter 13 Test #4, 5, 9, 10; Pg. 551–552 Application and Extension of Knowledge #3, 4, 5

Standard (13) The student understands and demonstrates legal and ethical procedures as they apply to the use of information technology. The student is expected to:

(A) explain and demonstrate ethical use of technology and online resources;
   (i) explain ethical use of technology;
      Narrative: Pg. 336–340 Software Piracy; Pg. 531–532 Ethical Use of the Internet; Pg. 659–660 Ethical Behavior in Cyberspace
      Activity: Pg. 339 Hands-on Example 8.3.1; Pg. 341 Check Your Understanding #3, 4; Pg. 343 Chapter 8 Test #5, 9, 10; Pg. 532 Hands-on Example 13.1.3; Pg. 532 Check Your Understanding #5; Pg. 661 Check Your Understanding #4, 5; Pg. 679 Chapter 16 Test #8
   (ii) explain ethical use of online resources;
      Narrative: Pg. 336–340 Software Piracy; Pg. 531–532 Ethical Use of the Internet; Pg. 659–660 Ethical Behavior in Cyberspace
      Activity: Pg. 339 Hands-on Example 8.3.1; Pg. 341 Check Your Understanding #3, 4; Pg. 343 Chapter 8 Test #5, 9, 10; Pg. 532 Hands-on Example 13.1.3; Pg. 532 Check Your Understanding #5; Pg. 661 Check Your Understanding #4, 5; Pg. 679 Chapter 16 Test #8
   (iii) demonstrate ethical use of technology;
      Narrative: Pg. 336–340 Software Piracy
      Activity: Pg. 339 Hands-on Example 8.3.1; Pg. 341 Check Your Understanding #3, 4; Pg. 343 Chapter 8 Test #9, 10
   (iv) demonstrate ethical use of online resources;
      Narrative: Pg. 336–340 Software Piracy; Pg. 531–532 Ethical Use of the Internet; Pg. 659–660 Ethical Behavior in Cyberspace
      Activity: Pg. 339 Hands-on Example 8.3.1; Pg. 341 Check Your Understanding #3, 4; Pg. 343 Chapter 8 Test #5, 9, 10; Pg. 532 Hands-on Example 13.1.3; Pg. 551 Application and Extension of Knowledge #3; Pg. 681 Internet Research: Internet Security and Ethical Use

(B) (i) adhere to intellectual property laws;
      Narrative: Pg. 335–336 Intellectual Property
      Activity: Pg. 341 Check Your Understanding #1, 2; Pg. 343 Chapter 8 Test #5, 9

(C) explain the concept of intellectual property laws, including copyright, trademarks and patents and consequences of violating each type of law;
   (i) explain the concept of intellectual property laws, including copyright;
      Narrative: Pg. 335–336 Copyright
      Activity: Pg. 341 Check Your Understanding #1, 2; Pg. 343 Chapter 8 Test #5, 15
   (ii) explain the concept of intellectual property laws, including trademarks;
      Narrative: Pg. 336 Trademark
      Activity: Pg. 341 Check Your Understanding #1; Pg. 343 Chapter 8 Test #5, 9; Pg. 344 Application and Extension of Knowledge #4
   (iii) explain the concept of intellectual property laws, including patents;
      Narrative: Pg. 336 Patents
      Activity: Pg. 341 Check Your Understanding #1; Pg. 343 Chapter 8 Test #5, 9; Pg. 344 Application and Extension of Knowledge #4
   (iv) explain the consequences of violating [copyright] law;
      Narrative: Pg. 335–336 Copyright
      Activity: Pg. 341 Check Your Understanding #1, 2; Pg. 343 Chapter 8 Test #5, 15; Pg. 344 Application and Extension of Knowledge #4
   (v) explain the consequences of violating [trademark] law;
      Narrative: Pg. 336 Trademark
      Activity: Pg. 341 Check Your Understanding #1; Pg. 343...
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| (vi) | explain the consequences of violating [patent] law; | Narrative: Pg. 336 Patents  
Activity: Pg. 341 Check Your Understanding #1; Pg. 343 Chapter 8 Test #5, 9; Pg. 344 Application and Extension of Knowledge #4 |
| (D) (i) | examine the consequences of plagiarism; | Narrative: Pg. 338 Plagiarism  
Activity: Pg. 341 Check Your Understanding #4; Pg. 343 Chapter 8 Test #5, 9, 15 |
| (E) | identify and explain unethical practices such as hacking, online piracy, and data vandalism; and |   |
|   (i) | identify unethical practices; | Narrative: Pg. 639–644 Computer Threats; Pg. 648 Defending Against Cyber Attacks; Pg. 650–660 Section 16.2 Identity Protection and Ethical Behavior  
Activity: Pg. 644 Hands-on Example 16.1.1; Pg. 648–649 Hands-on Example 16.1.2; Pg. 649 Check Your Understanding #1, 2; Pg. 652 Hands-on Example 16.2.1; Pg. 661 Hands-on Example 16.2.2; Pg. 661 Check Your Understanding #1; Pg. 679–680 Chapter 16 Test #1, 2, 3, 12, 13, 15 |
|   (ii) | explain unethical practices; and | Narrative: Pg. 639–644 Computer Threats; Pg. 648 Defending Against Cyber Attacks; Pg. 650–660 Section 16.2 Identity Protection and Ethical Behavior  
Activity: Pg. 644 Hands-on Example 16.1.1; Pg. 648–649 Hands-on Example 16.1.2; Pg. 649 Check Your Understanding #1, 2; Pg. 652 Hands-on Example 16.2.1; Pg. 661 Hands-on Example 16.2.2; Pg. 661 Check Your Understanding #1; Pg. 679–680 Chapter 16 Test #1, 2, 3, 12, 13, 15 |
| (F) (i) | demonstrate ethical use of online resources, including citation of source. | Narrative: Pg. 531–532 Ethical Use of the Internet; Pg. 659–660 Ethical Behavior in Cyberspace  
Activity: Pg. 532 Hands-on Example 13.1.3; Pg. 532 Check Your Understanding #5; Pg. 661 Check Your Understanding #4, 5; Pg. 679 Chapter 16 Test #8 |