



# Communication Technology/Technicians & Support Services, Classification of Instructional Program (CIP) 10.9999

*Units of Instruction and Task Grid Linked to Pennsylvania Core Standards*

## 100 Communication Technology and Safety Procedures

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>101</b> Explain communication technology and why it is important.</p> <p><b>102</b> Demonstrate safety procedures in the field of communication technology.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS 1 - 5 - 7 - 8 - 9</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B. Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.D. Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E. Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.G. Standard PCS.3.5.9-10.H. Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b> Standard PCS.3.5.11-12.G.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p>	

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
		Standard PCS.3.5.11-12.H. Standard PCS.3.5.11-12.I.  <b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b> <b>GRADES 9-10</b> Standard PCS.3.5.9-10.J <b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.	<b>RANGE OF WRITING</b> <b>GRADES 9-10</b> Standard PCS.3.5.9-10.I <b>GRADES 11-12</b> Standard PCS.3.5.11-12.I	

## 200 Leadership and Accountability Skills in Communication Technology

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>201</b> Demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology (i.e. presentations, podcasts, blogs, wikis, and forums).</p> <p><b>202</b> Use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources collaboratively.</p> <p><b>203</b> Demonstrate an understanding of human, cultural, and societal issues related to technology and practice legal and ethical behavior.</p> <p><b>204</b> Produce media for an intended target audience, including those with disabilities.</p> <p><b>205</b> Identify multimedia communications in the areas of education, business, health care, general information, leisure, and recreation.</p> <p><b>206</b> Demonstrate an understanding of, and observe copyright laws when producing media.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.A Standard PCS.3.5.11-12.B. Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.D. Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E. Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.G. Standard PCS.3.5.9-10.H. Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b> Standard PCS.3.5.11-12.G. Standard PCS.3.5.11-12.H. Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	

### 300 Ethical, Cultural, and Societal Issues related to Communication Technology

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>301</b> Describe ethics in relation to communication technology.</p> <p><b>302</b> Describe ethics in the communication technology educational environment.</p> <p><b>303</b> Describe ethics in the communication technology occupational environment.</p> <p><b>304</b> Describe ethics in the communication technology recreational environment.</p> <p><b>305</b> Describe ethics in the communication technology entertainment environment.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS 4 - 5 - 7 - 9</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.A            Standard PCS.3.6.9-10.B</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.A            Standard PCS.3.6.11-12.B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	

## 400 Communication Technology Systems Operation, Information, and Software

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>401</b> Identify ways to safeguard against computer viruses, worms, Trojan Horses, and spoofing.</p> <p><b>402</b> Describe techniques to prevent unauthorized computer access and use.</p> <p><b>403</b> Identify safeguards against hardware theft and vandalism.</p> <p><b>404</b> Explain the ways software manufacturers protect against software piracy.</p> <p><b>405</b> Define encryption and explain why it is necessary.</p> <p><b>406</b> Recognize issues related to information accuracy, rights, and conduct.</p> <p><b>407</b> Identify emerging, current, and obsolete technologies.</p> <p><b>408</b> Define and illustrate current terminology associated with computers.</p> <p><b>409</b> Research accessibility issues related to information technology.</p> <p><b>410</b> Identify how to maintain computer equipment and solve common problems relating to computer hardware.</p> <p><b>411</b> Identify file formats for use in multimedia productions.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS: 6 - 9 - 10 - 11 - and 12</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.A            Standard PCS.3.6.9-10.B</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.A            Standard PCS.3.6.11-12.B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	

## 500 Computer System Set Up

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>501</b> Demonstrate precautions and care when working with computers, printers, storage devices, and other peripherals.</p> <p><b>502</b> Demonstrate the knowledge of setting up a computer system, so it is operational for the user.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS: 7 - 11 - 12</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.A            Standard PCS.3.6.9-10.B</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.A            Standard PCS.3.6.11-12.B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	

## 600 Basic Computer Applications

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>601</b> Demonstrate a mastery of terminology related to computer applications.</p> <p><b>602</b> Manipulate and control the operating system and files.</p> <p><b>603</b> Manipulate a window by using menus, icons, and keyboard shortcuts.</p> <p><b>604</b> Create a file management system.</p> <p><b>605</b> Distinguish between system software and application software.</p> <p><b>606</b> Use software and hardware to perform computing tasks.</p> <p><b>607</b> Identify different types of software, and general concepts related to software categories.</p> <p><b>608</b> Demonstrate proper hand, finger, and body position when using a keyboard.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS: 7 - 8 - 11 - 12</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b>            Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	

## 700 Electronic Communication Applications

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>701</b> Define terminology associated with electronic communications.</p> <p><b>702</b> Locate services available on the internet.</p> <p><b>703</b> Identify different types of information sources on the internet.</p> <p><b>704</b> Use a web browser.</p> <p><b>705</b> Search the internet for information. Follow procedures for using electronic mail applications.</p> <p><b>706</b> Identify the appropriate use of electronic mail and netiquette.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS: 7 - 8 - 9 - 10 - 11 - 12</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b>            Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	



## 800 Web Collaboration

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>801</b> Create, publish, and manage a supervised site; e.g., YouTube channel, website, wiki, or blog.</p> <p><b>802</b> Use an appropriate, supervised site to communicate with peers and other approved audiences.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS: 5 - 6 - 8 - and 10</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b>            Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	

## 900 Information Location, Evaluation, and Collection

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>901</b> Demonstrate basic terminology related to locating, evaluating, and collecting information from a variety of sources.</p> <p><b>902</b> Describe the various sources to locate information.</p> <p><b>903</b> Locate, collect, and evaluate the qualifications and credentials of information from text (i.e. books, newspapers, periodicals).</p> <p><b>904</b> Locate, collect, and evaluate the qualifications and credentials of information from the web.</p> <p><b>905</b> Create a web page evaluation tool.</p> <p><b>906</b> Use an evaluation tool, evaluate a web page, and other media, such as videos, photographs, or audio documents.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B. Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.D. Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E. Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.G. Standard PCS.3.5.9-10.H. Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b> Standard PCS.3.5.11-12.G. Standard PCS.3.5.11-12.H. Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING/LEVEL OF COMPLEX TEXTS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	

# 1000 Word Processing

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1001</b> Use basic word processing commands to create, format, and edit documents.</p> <p><b>1002</b> Start and exit a word processing application and utilize sources of online help.</p> <p><b>1003</b> Identify common on-screen elements of a word processing application.</p> <p><b>1004</b> Change application settings and manage files within a word processing application.</p> <p><b>1005</b> Perform common printing functions.</p> <p><b>1006</b> Generate a hard copy of business correspondence to include a memo, personal and business letter, and letterhead.</p> <p><b>1007</b> Use advanced word processing skills to format and print a multi-page report in an integrated activity, following an accepted referencing format using appropriate guidelines, including works cited page.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	<p><b>OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS</b></p> <p><b>Standard PCS 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard PCS 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>Standard PCS 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>GEOMETRIC PROPERTIES AND REASONING</b></p> <p><b>Standard PCS 2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects.</p> <p><b>Standard PCS 2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

# 1100 Design and Layout

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1101</b> Identify and describe the basic components of a design application.</p> <p><b>1102</b> Identify, describe, and demonstrate the principles of typography.</p> <p><b>1103</b> Demonstrate knowledge of design principles including color theory, composition and layout, perspective, and typography.</p> <p><b>1104</b> Evaluate and apply the principles of design in various visual media.</p> <p><b>1105</b> Evaluate desktop publishing documents to design principles.</p> <p><b>1106</b> Demonstrate interconnections between different software applications.</p> <p><b>1107</b> Develop, publish, and present an advertising campaign.</p> <p><b>1108</b> Use a vector based application.</p> <p><b>1109</b> Use a bitmap based application.</p> <p><b>1110</b> Insert and edit graphics in a desktop application.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.A            Standard PCS.3.6.9-10.B</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.A            Standard PCS.3.6.11-12.B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	<p><b>OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS</b></p> <p><b>Standard PCS 2.1.HS.F.2</b>            Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard PCS 2.1.HS.F.4</b>            Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>Standard PCS 2.1.HS.F.5</b>            Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard PCS 2.1.HS.F.6</b>            Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRIC PROPERTIES AND REASONING</b></p> <p><b>Standard PCS 2.3.HS.A.13</b>            Analyze relationships between two dimensional and three dimensional objects.</p> <p><b>Standard PCS 2.3.HS.A.14</b>            Apply geometric concepts to model and solve real world problems.</p>

# 1200 Multimedia Presentation

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1201</b> Use proper terminology related to presentation applications.</p> <p><b>1202</b> Perform multimedia presentations to include slides, views, transitions, animations, color schemes and backgrounds.</p> <p><b>1203</b> Determine strategies for success in multimedia projects.</p> <p><b>1204</b> Create a multimedia presentation.</p> <p><b>1205</b> Format a multimedia presentation.</p> <p><b>1206</b> Print/export a multimedia presentation.</p> <p><b>1207</b> Present a multimedia presentation.</p> <p><b>1208</b> Identify the appropriate use of presentation hardware tools, such as an LCD projector or interactive white board.</p> <p><b>1209</b> Compose a presentation that includes a script, text, sound, images animation and video.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	<p><b>OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS</b></p> <p><b>Standard PCS 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard PCS 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>Standard PCS 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard PCS 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRIC PROPERTIES AND REASONING</b></p> <p><b>Standard PCS2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects.</p> <p><b>Standard PCS 2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

# 1300 Photography, Cinematography, and Image Capture

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1301</b> Demonstrate proper operation of the digital still and video cameras.</p> <p><b>1302</b> Import, capture, and/or transfer image/video from camera.</p> <p><b>1303</b> Identify the parts of a digital camera.</p> <p><b>1304</b> Apply basic principles of exposure.</p> <p><b>1305</b> Apply basic principles of focus.</p> <p><b>1306</b> Apply white balance procedures to the production environment.</p> <p><b>1307</b> Apply basic principles of composition/field of view.</p> <p><b>1308</b> Demonstrate the proper use of support systems (i.e. monopod, tripods, etc.).</p> <p><b>1309</b> Monitor and record proper audio levels.</p> <p><b>1310</b> Identify types of recording codes and formats.</p> <p><b>1311</b> Identify various video recording media.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	<p><b>OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS</b></p> <p><b>Standard PCS 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard PCS 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>Standard PCS 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard PCS 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>GEOMETRIC PROPERTIES AND REASONING</b></p> <p><b>Standard PCS2.3.HS.A.13</b> Analyze relationships between two dimensional and three dimensional objects.</p> <p><b>Standard PCS 2.3.HS.A.14</b> Apply geometric concepts to model and solve real world problems.</p>

## 1400 Communication Network Components

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1401</b> Use proper terminology and components of a communication network.</p> <p><b>1402</b> Identify the types of communication networks, such as WiFi, Blue Tooth, LAN, etc.</p> <p><b>1403</b> Describe the various network protocols (e.g., FTP, SMTP, HTTP, etc.).</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	

# 1500 Web Design Applications for Communication Technology

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1501</b> Identify and describe the properties of HTML, CSS, and various scripting languages (such as java script and PHP).</p> <p><b>1502</b> Identify and describe the properties of different types of image compression formats for the web such as JPEG, TIFF, and PNG.</p> <p><b>1503</b> Identify and use basic HTML elements to create a web page.</p> <p><b>1504</b> Integrate graphics and links to an HTML page.</p> <p><b>1505</b> Demonstrate the properties of typography in HTML and CSS.</p> <p><b>1506</b> Identify, define, and demonstrate the use of tables and forms.</p> <p><b>1507</b> Evaluate page design.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.A            Standard PCS.3.5.9-10.B            Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12A            Standard PCS.3.5.11-12.B.            Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.D.            Standard PCS.3.5.9-10.E            Standard PCS.3.5.9-10.F</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.D.            Standard PCS.3.5.11-12.E.            Standard PCS.3.5.11-12.F</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.G.            Standard PCS.3.5.9-10.H.            Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 9-12</b>            Standard PCS.3.5.11-12.G.            Standard PCS.3.5.11-12.H.            Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b>            Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.C            Standard PCS.3.6.9-10 D            Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12 C            Standard.PCS.3.6.11-12.D.            Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.6.9-10.F            Standard PCS.3.6.9-10.G            Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b>            Standard PCS.3.6.11-12.F            Standard PCS.3.6.11-12.G            Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b>            Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b>            Standard PCS.3.5.11-12.I</p>	<p><b>OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS</b></p> <p><b>Standard PCS 2.1.HS.F.2</b>            Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard PCS 2.1.HS.F.4</b>            Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>Standard PCS 2.1.HS.F.5</b>            Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard PCS 2.1.HS.F.6</b>            Extend the knowledge of arithmetic operations and apply to complex numbers.</p>



## 1600 Cross Platform Cellular Telephone Communication

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1601</b> Create and utilize multimedia for multiplatform distribution (i.e., cell, web, mobile devices, television).</p> <p><b>1602</b> Create and utilize QR codes.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	

## 1700 Video and Audio Production

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1701</b> Identify appropriate target audience.</p> <p><b>1702</b> Identify and use various script formats (i.e., radio, TV, 2 column, and screen play).</p> <p><b>1703</b> Develop a storyboard.</p> <p><b>1704</b> Import and/or transfer media into nonlinear editor.</p> <p><b>1705</b> Demonstrate use of video and audio effects and transitions.</p> <p><b>1706</b> Add titles to a video production.</p> <p><b>1707</b> Export finished project for distribution.</p> <p><b>1708</b> Identify types of microphones and pickup patterns.</p>	<p><b>STANDARDS: None listed for this unit of instruction.</b></p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	

# 1800 Project Management

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
<p><b>1801</b> Create and manage a production schedule.</p> <p><b>1802</b> Create a project budget using spreadsheet software.</p> <p><b>1803</b> Given a budget, design a workstation for a specific multimedia application.</p>	<p><b>Refer to the end of this document for an explanation of the following standards and sample indicators:</b></p> <p>STANDARDS: 3 - 11 - and 12</p>	<p><b>KEY IDEAS/DETAILS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.C</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.C.</p> <p><b>CRAFT &amp; STRUCTURE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.D. Standard PCS.3.5.11-12.E.</p> <p><b>INTEGRATE KNOWLEDGE/ IDEAS</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I.</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I.</p> <p><b>RANGE OF READING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.J</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.J.</p>	<p><b>TEXT TYPES/ PURPOSE</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10B</p> <p><b>GRADES 11-12</b> Standard 3.6.9-11-12B</p> <p><b>PRODUCTION AND DISTRIBUTION OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D. Standard PCS.3.6.11- 12 E.</p> <p><b>RESEARCH</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H</p> <p><b>GRADES 11-12</b> Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H</p> <p><b>RANGE OF WRITING</b></p> <p><b>GRADES 9-10</b> Standard PCS.3.5.9-10.I</p> <p><b>GRADES 11-12</b> Standard PCS.3.5.11-12.I</p>	<p><b>OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS</b></p> <p><b>Standard PCS 2.1.HS.F.2</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>Standard PCS 2.1.HS.F.4</b> Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>Standard PCS 2.1.HS.F.5</b> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p><b>Standard PCS 2.1.HS.F.6</b> Extend the knowledge of arithmetic operations and apply to complex numbers.</p> <p><b>LINEAR FUNCTIONS AND DATA ORGANIZATIONS</b></p> <p><b>Standard PCS 2.4.HS.B.2</b> Summarize, represent, and interpret data on two categorical and quantitative variables.</p> <p><b>Standard PCS 2.1.HS.F3</b> Apply quantitative reasoning to choose and interpret units and scales in formulas, graphs and data displays.</p> <p><b>DATA ANALYSIS</b></p> <p><b>Standard PCS 2.4.HS.B.1</b> Summarize, represent, and interpret data on a single count or measurement variable.</p> <p><b>Standard PCS 2.4.HS.B.3</b> Analyze linear models to make interpretations based</p>

Secondary Competency Task Grid with Unit and Task Numbers	Common Career Technical Core Standards	Pennsylvania Core Standards for Reading for Technical Subjects Standard 3.5	Pennsylvania Core Standards for Writing for Technical Subjects Standard 3.6	Pennsylvania Core Standards for Mathematics Standard 2.1
				<p>on the data.  <b>Standard PCS 2.4.HS.B.5</b>            Make inferences and justify            conclusions based on sample            surveys, experiments, and            observational studies.</p>

## **Reference List for 12 Common Core Technical Standards in Communication Technology/Technicians and Support Services with Sample Indicators for each Standard**

1. Demonstrate effective professional communication skills and practices that enable positive customer relationships.
  - 1 a. Identify organization's products and services (including own strengths as an agent of the company).
  - 1 b. Recognize the importance of all customers to the business.
2. Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
  - 2 a. Test products for reliability.
  - 2 b. Initiate predictive maintenance procedures.
  - 2 c. Document a Quality Assurance (QA) program (includes creating a plan and evaluating effectiveness of the program).
  - 2 d. Plan for products/services using reliability factors.
  - 2 e. Create products/services using reliability factors.
  - 2 f. Test new products/services for reliability.
  - 2 g. Maintain the reliability of new products/services.
3. Demonstrate the use of cross functional teams in achieving IT project goals.
  - 3 a. Consider the benefits of using a cross functional team in policy and procedure development.
  - 3 b. Identify desired group and team behavior in an IT context.
  - 3 c. Explain technical concepts to various audiences in nontechnical terms.
  - 3 d. Describe strategies for maximizing productivity in a high tech environment.
4. Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.
  - 4 a. Demonstrate knowledge of the legal issues that face IT professionals.
  - 4 b. Identify issues and trends affecting computers and information privacy.
  - 4 c. Explain legal issues involved in a company security policy.  
Identify legal issues involved concerning a security breach. Summarize the rights and responsibilities of IT workers. Identify ethical issues common to the IT field.
5. Explain the implications of IT on business development.
  - 5 a. Demonstrate knowledge of how both PCs and larger computer systems impact people and are used in business/industry/government and other institutions.
  - 5 b. Demonstrate knowledge of the impact of computers on career pathways in business/industry (e.g. how computers have eliminated and created jobs).
  - 5 c. Demonstrate knowledge of the impact of computers on access to information and information exchange worldwide.
  - 5 d. Demonstrate knowledge of ethical issues that have surfaced in the information age.

6. Describe trends in emerging and evolving computer technologies and their influence on IT practices.
  - 6 a. Identify new technologies relevant to information technology.
  - 6 b. Assess the importance of new technologies to future developments and to future knowledge worker productivity.
  - 6 c. Identify new and emerging drivers and inhibitors of information technology change.
  - 6 d. Assess the potential importance and impact of new IT technologies in the future.
7. Perform standard computer backup and restore procedures to protect IT information.
  - 7 a. Recognize the need for regular backup procedures.
  - 7 b. Load backup software.
  - 7 c. Load compression drive backup software.
  - 7 d. Install surge suppression protection.
  - 7 e. Identify battery backup equipment.
  - 7 f. Maintain battery backup system.
  - 7 g. Identify hot and warm site backup concepts.
8. Recognize and analyze potential IT security threats to develop and maintain security requirements.
  - 8 a. Describe potential security threats to information systems.
  - 8 b. Identify the range of security needs and the problems that can occur due to security lapses.
  - 8 c. Maximize threat reduction.
  - 8 d. Assess exposure to security issues.
  - 8 e. Implement countermeasures.
  - 8 f. Ensure compliance with security rules, regulations and codes.
  - 8 g. Demonstrate knowledge of virus protection strategy.
  - 8 h. Implement security procedures in accordance with business ethics.
  - 8 i. Develop plans to address secure threats.
  - 8 j. Document security procedures.
9. Describe quality assurance practices and methods employed in producing and providing quality IT products and services.
  - 9 a. Demonstrate knowledge of the historical evolution of quality assurance/total quality management (e.g., Deming, ISO 9000).
  - 9 a. Demonstrate knowledge of changes brought about by quality leaders in the world.
  - 9 b. Demonstrate knowledge of the ISO 9000 process.
  - 9 c. Demonstrate knowledge of the standards/requirements for the Baldrige award.
  - 9 d. Demonstrate knowledge of successful efforts by industry to improve quality and/or reduce costs.
  - 9 e. Demonstrate knowledge of the control devices used in functional areas (e.g. SPC, equipment).
  - 9 f. Demonstrate knowledge of the relationship among organizational structures, policies, procedures and quality assurance.
  - 9 g. Identify internal and external customers.
  - 9 h. Differentiate between prevention and detection.
  - 9 i. Differentiate between variable and attribute data.
  - 9 j. Identify types of control charts.

- 9 k. Demonstrate knowledge of how statistical techniques are used to control quality (e.g., SPC, DOE, CR).
- 9 l. Demonstrate knowledge of quality management terminology.
- 9 m. Identify the role of quality within the organization.
- 9 n. Identify the features and benefits of quality planning.
- 10. Describe the use of computer forensics to prevent and solve information technology crimes and security breaches.
  - 10 a. Define computer forensics.
  - 10 b. List some of the basic skills and knowledge a computer forensics specialist should possess.
  - 10 c. Identify the circumstances under which computer forensics evidence is typically used, who typically uses such evidence and how it is used.
  - 10 d. Identify and attempt to retrieve possible evidence that may exist on a computer system.
  - 10 e. List what should and should not be done with the computer and evidence during an investigation.
  - 10 f. List common internet crimes.
  - 10 g. List some prevention actions related to cybercrime.
  - 10 h. Describe techniques to identify criminal activity.
  - 10 i. Identify how one files a complaint if a cybercrime is suspected or has occurred.
- 11. Demonstrate knowledge of the hardware components associated with information systems.
- 12. Compare key functions and applications of software and determine maintenance strategies for computer systems.