Pennsylvania
DEPARTMENT OF EDUCATION

Web Page, Digital/Multimedia and Information Resources Design, Classification of Instructional Program (CIP) 11.0801
Units of Instruction and Task Grid Linked to Pennsylvania Core Standards

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
100. **SAFETY IN THE MULTIMEDIA LABORATORY.**				
101 Explain the Safety Data Sheet (SDS) system for hazardous chemicals and materials. 102 RESERVED 103 RESERVED	**Refer to the end of this document for an explanation of the following standards and sample indicators:** **CC TECH CORE STANDARDS:** **INFORMATION TECH.** **IT 11** **WEB AND DIGITAL COMMUNICATION** **IT-WD 01** **IT-WD 02** **IT-WD 03** **IT-WD 04** **IT-WD 05** **IT-WD 06** **IT-WD 07**	**KEY IDEAS/DETAILS** **GRADES 9-10** **Standard PCS.3.5.9-10.A** **Standard PCS.3.5.9-10.B** **Standard PCS.3.5.9-10.C** **GRADES 11-12** **Standard PCS.3.5.11-12A** **Standard PCS.3.5.11-12.B** **Standard PCS.3.5.11-12.C** **CRAFT AND STRUCTURE** **GRADES 9-10** **Standard PCS.3.5.9-10.D** **Standard PCS.3.5.9-10.E** **Standard PCS.3.5.9-10.F** **GRADES 11-12** **Standard PCS.3.5.11-12.D** **Standard PCS.3.5.11-12.E**	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D	

		IT-WD 08 **IT-WD 09** **IT-WD 10**	**Standard PCS.3.5.11-12.F** **INTEGRATE KNOWLEDGE/IDEAS** **GRADES 9-10** **Standard PCS.3.5.9-10.G** **Standard PCS.3.5.9-10.H** **Standard PCS.3.5.9-10.I** **GRADES 9-12** **Standard PCS.3.5.11-12.G** **Standard PCS.3.5.11-12.H** **Standard PCS.3.5.11-12.I**	Standard PCS.3.6.11- 12 E **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
200	**DESIGN TECHNOLOGY.**				
201	Demonstrate proficiency with technologies common to web page and multimedia design.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** **CC TECH CORE STANDARDS: INFORMATION TECH.** **IT 01** **WEB AND DIGITAL COMMUNICATION** **IT-WD 01** **IT-WD 02** **IT-WD 03** **IT-WD 04** **IT-WD 05** **IT-WD 06** **IT-WD 07** **IT-WD 08** **IT-WD 09**	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D	
202	Demonstrate knowledge of information technology skills.				
203	Demonstrate knowledge of the internet and related security issues.				
204	Demonstrate knowledge of web communication technology skills.				
205	Demonstrate the knowledge of acceptable use policy (AUP).				

			INTEGRATE KNOWLEDGE/IDEAS	Standard PCS.3.6.11- 12 E
		IT-WD 10	*GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**RESEARCH** *GRADES 9-10* Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H *GRADES 11-12* Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
300	**FOUNDATIONS OF INFORMATION TECHNOLOGY.**				
301 302 303 304 305	Describe the history and emerging technologies used in information technology. Describe the impact of information technology on business and society. Identify software associated with information systems. Determine basic data and determine storage concepts. Describe the evolution of the internet and how it works.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11 WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C	

		IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	*GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RESEARCH** *GRADES 9-10* Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H *GRADES 11-12* Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
400	**COMPUTER APPLICATIONS.**				
401 402 403 404	Create documents related to information technology using word processing/publishing software for online documentation. Create a relational database. Create spreadsheets for real world business problems. Create presentations, using presentation software.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	**NUMBERS AND OPERATIONS** Standard PCS.2.1.HS.F.1 Standard PCS.2.1.HS.F.2 Standard PCS.2.1.HS.F.3 Standard PCS.2.1.HS.F.4

			CRAFT AND STRUCTURE	PRODUCTION AND DISTRIBUTION OF WRITING	Standard PCS.2.1.HS.F.5
		WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	**CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	Standard PCS.2.1.HS.F.5 Standard PCS.2.1.HS.F.6 Standard PCS.2.1.HS.F.7 **OPERATIONS AND ALGEBRAIC THINKING** **Algebra** Standard PCS.2.2.HS.D.1 Standard PCS.2.2.HS.D.2 Standard PCS.2.2.HS.D.3 Standard PCS.2.2.HS.D.4 Standard PCS.2.2.HS.D.5 Standard PCS.2.2.HS.D.6 Standard PCS.2.2.HS.D.7 Standard PCS.2.2.HS.D.8 Standard PCS.2.2.HS.D.9 Standard PCS.2.2.HS.D.10
500	**FUNDAMENTALS OF COMPUTER OPERATION.**				
501 502 503 504	RESERVED RESERVED Demonstrate the use of connectivity devices and peripheral equipment. Manage the various file types.	**Refer to the end of this document for an explanation of the following standards and sample indicators:**	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A	**NUMBERS AND OPERATIONS** Standard PCS.2.1.HS.F.1

505	Compare and contrast the basic differences among operating systems (e.g., as browser operations are affected).	CC TECH CORE STANDARDS: INFORMATION TECH. IT 11 IT 12 WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	Standard PCS.3.5.9-10.C **GRADES 11-12** Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE** **GRADES 9-10** Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F **GRADES 11-12** Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** **GRADES 9-10** Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I **GRADES 9-12** Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	Standard PCS.3.6.9-10.B **GRADES 11-12** Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** **GRADES 9-10** Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E **GRADES 11-12** Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** **GRADES 9-10** Standard PCS.3.5.9-10.I **GRADES 11-12** Standard CC.3.5.11-12.I	Standard PCS.2.1.HS.F.2 Standard PCS.2.1.HS.F.3 Standard PCS.2.1.HS.F.4 Standard PCS.2.1.HS.F.5 Standard PCS.2.1.HS.F.6 Standard PCS.2.1.HS.F.7
506	Investigate basic issues affecting system purchase and upgrade decisions.				
507	Install and configure hardware and software in a computer system.				
508	Perform basic software configuration operations.				
509	Describe the importance of data backup strategies and media, and back up files.				
510	Describe the use of remote computer operations and programming.				
600	**NETWORK FUNDAMENTALS.**				
601	Identify the elements that are required to connect to the internet.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS:	**KEY IDEAS/DETAILS** **GRADES 9-10** Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C **GRADES 11-12**	**TEXT TYPES/ PURPOSE** **GRADES 9-10** Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B **GRADES 11-12** Standard PCS.3.6.11-12.A	
602	RESERVED				
603	RESERVED				
604	Describe various types and features of various web browsers.				
605	Explain file transfer mechanisms.				

606	Demonstrate proper grammar and punctuation as related to web page design.	INFORMATION TECH. IT 11	Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C	Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E	
607	List the criteria for conducting searches on the internet.	WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	**CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**RESEARCH** *GRADES 9-10* Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
700	**BASICS OF PROGRAMMING.**				
701	Explain the purpose and functions of computer programming.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH.	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	
702	Identify the types and application of programming languages (e.g., mark up and scripting).				
703	RESERVED				
704	RESERVED				

		IT 11 WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
800	**COMPUTER GRAPHICS AND INTERACTIVE MEDIA.**				
801 802 803 804 805 806 807	Identify hardware required for multimedia and entertainment presentations. Describe various software programs associated with graphics and interactive media. Explain the components of multimedia design and their applications. Perform image management procedures. Demonstrate professional visual communications skills. Demonstrate presentation strategies. Describe web publishing systems.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11 IT 12	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	**NUMBERS AND OPERATIONS** Standard PCS.2.1.HS.F.1 Standard PCS.2.1.HS.F.2 Standard PCS.2.1.HS.F.3 Standard PCS.2.1.HS.F.4 Standard PCS.2.1.HS.F.5

			CRAFT AND STRUCTURE	PRODUCTION AND DISTRIBUTION OF WRITING	
808	Create an interactive multimedia presentation.	WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	**CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	Standard PCS.2.1.HS.F.6 Standard PCS.2.1.HS.F.7
900	**PRINCIPLES OF LAYOUT AND DESIGN.**				
901 902 903 904	Identify project management components. Plan an effective design for a project using storyboard procedures. Apply principles of design, layout, and typography appropriate for a project. Explain the steps in a web design life cycle (planning, development, deployment, testing, and revision).	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11 WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE** *GRADES 9-10*	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10*	**NUMBERS AND OPERATIONS** Standard PCS.2.1.HS.F.1 Standard PCS.2.1.HS.F.2 Standard PCS.2.1.HS.F.3 Standard PCS.2.1.HS.F.4 Standard PCS.2.1.HS.F.5 Standard PCS.2.1.HS.F.6

	IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F ***GRADES 11-12*** Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** ***GRADES 9-10*** Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I ***GRADES 9-12*** Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E ***GRADES 11-12*** Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RESEARCH** ***GRADES 9-10*** Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H ***GRADES 11-12*** Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H **RANGE OF WRITING** ***GRADES 9-10*** Standard PCS.3.5.9-10.I ***GRADES 11-12*** Standard CC.3.5.11-12.I	Standard PCS.2.1.HS.F.7
1000 DIGITAL DOCUMENTS.				
1001 Create a document in a format appropriate for electronic distribution. 1002 Convert a document to electronic format. 1003 Critique a project to determine whether it meets the designated guidelines.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11	**KEY IDEAS/DETAILS** ***GRADES 9-10*** Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C ***GRADES 11-12*** Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C	**TEXT TYPES/ PURPOSE** ***GRADES 9-10*** Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B ***GRADES 11-12*** Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	

WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	**CRAFT AND STRUCTURE** ***GRADES 9-10*** Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F ***GRADES 11-12*** Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** ***GRADES 9-10*** Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I ***GRADES 9-12*** Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**PRODUCTION AND DISTRIBUTION OF WRITING** ***GRADES 9-10*** Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E ***GRADES 11-12*** Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** ***GRADES 9-10*** Standard PCS.3.5.9-10.I ***GRADES 11-12*** Standard CC.3.5.11-12.I	
1100 MULTIMEDIA PRESENTATIONS/PROJECTS.			
1101 Identify the components of an effective multimedia project. 1102 Create a storyboard or outline for a multimedia project. 1103 Use master slides, templates, and/or themes. 1104 Create an object, using graphic design software. 1105 Incorporate charts, graphs, and/or tables into a multimedia project. 1106 Enhance a multimedia project with user interactivity. 1107 Incorporate elements from other sources into a multimedia project.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11 WEB AND DIGITAL COMMUNICATION	**KEY IDEAS/DETAILS** ***GRADES 9-10*** Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C ***GRADES 11-12*** Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE**	**TEXT TYPES/ PURPOSE** ***GRADES 9-10*** Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B ***GRADES 11-12*** Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	**NUMBERS AND OPERATIONS** Standard PCS.2.1.HS.F.1 Standard PCS.2.1.HS.F.2 Standard PCS.2.1.HS.F.3 Standard PCS.2.1.HS.F.4 Standard PCS.2.1.HS.F.5

1108 Edit a multimedia project. 1109 Create handouts and/or other visuals for a multimedia presentation. 1110 Deliver a multimedia presentation. 1111 Critique a multimedia presentation to determine whether it meets the designated guidelines.	IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	*GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	**PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	Standard PCS.2.1.HS.F.6 Standard PCS.2.1.HS.F.7
1200 LEGAL AND ETHICAL ISSUES IN INTERNET TECHNOLOGY.				
1201 Explain the security issues related to computers and internet technology. 1202 Describe copyright issues and laws related to creating desktop published, multimedia, and website design projects. 1203 Comply with copyright laws when creating advanced desktop published, multimedia, and website design projects. 1204 Demonstrate avoidance of unethical/inappropriate use of elements in advanced projects. 1205 Comply with licensing agreements pertaining to software usage. 1206 Demonstrate procedures to guard against computer crimes.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 04 IT 05 IT 11 WEB AND DIGITAL COMMUNICATION	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE** *GRADES 9-10* Standard PCS.3.5.9-10.D	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING** *GRADES 9-10*	

1207	Describe design of websites for accessibility and accommodation of persons with special needs.	IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F ***GRADES 11-12*** Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** ***GRADES 9-10*** Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I ***GRADES 9-12*** Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E ***GRADES 11-12*** Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RESEARCH** ***GRADES 9-10*** Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H ***GRADES 11-12*** Standard PCS.3.6.11-12.F Standard.PCS.3.6.11-12.G Standard PCS.3.6.11-12.H **RANGE OF WRITING** ***GRADES 9-10*** Standard PCS.3.5.9-10.I ***GRADES 11-12*** Standard CC.3.5.11-12.I	
1300	**INDUSTRY CERTIFICATION.**				
1301 1302 1303	Describe the process and requirements for obtaining industry certifications related to the design, multimedia, and web technologies. Identify testing skills/strategies for a certification examination. Demonstrate ability to successfully complete selected practice examinations (e.g., practice questions similar to those on certification exams).	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11	**KEY IDEAS/DETAILS** ***GRADES 9-10*** Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C ***GRADES 11-12*** Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C	**TEXT TYPES/ PURPOSE** ***GRADES 9-10*** Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B ***GRADES 11-12*** Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	

			CRAFT AND STRUCTURE	PRODUCTION AND DISTRIBUTION OF WRITING	
		WEB AND DIGITAL COMMUNICATION IT-WD 01 IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	*GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	*GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
1400	**CLIENT RELATIONS.**				
1401 1402 1403 1404 1405 1406 1407	Communicating with others (peers and others) about design and content plans. Demonstrate effective presentation skills through the exploration and utilization of various business formats, technologies, and environments. Assessing client needs (complete a needs assessment for a client). Create a client proposal for developing a website. Plan and develop a client job cost analysis. Write, deliver, and execute a client contractual agreement. Provide customer technical support for created content.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH. IT 11 WEB AND DIGITAL COMMUNICATION IT-WD 01	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C **CRAFT AND STRUCTURE**	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B **PRODUCTION AND DISTRIBUTION OF WRITING**	

	IT-WD 02 IT-WD 03 IT-WD 04 IT-WD 05 IT-WD 06 IT-WD 07 IT-WD 08 IT-WD 09 IT-WD 10	*GRADES 9-10* Standard PCS.3.5.9-10.D Standard PCS.3.5.9-10.E Standard PCS.3.5.9-10.F *GRADES 11-12* Standard PCS.3.5.11-12.D Standard PCS.3.5.11-12.E Standard PCS.3.5.11-12.F **INTEGRATE KNOWLEDGE/IDEAS** *GRADES 9-10* Standard PCS.3.5.9-10.G Standard PCS.3.5.9-10.H Standard PCS.3.5.9-10.I *GRADES 9-12* Standard PCS.3.5.11-12.G Standard PCS.3.5.11-12.H Standard PCS.3.5.11-12.I	*GRADES 9-10* Standard PCS.3.6.9-10.C Standard PCS.3.6.9-10 D Standard PCS.3.6.9-10.E *GRADES 11-12* Standard PCS.3.6.11-12 C Standard.PCS.3.6.11-12.D Standard PCS.3.6.11- 12 E **RESEARCH** *GRADES 9-10* Standard PCS.3.6.9-10.F Standard PCS.3.6.9-10.G Standard PCS.3.6.9-10.H *GRADES 11-12* Standard PCS.3.6.11-12.F Standard PCS.3.6.11-12.G Standard PCS.3.6.11-12.H **RANGE OF WRITING** *GRADES 9-10* Standard PCS.3.5.9-10.I *GRADES 11-12* Standard CC.3.5.11-12.I	
1500	**DESIGN AND CREATE WEBSITES.**			
1501 Demonstrate proper use of What You See Is What You Get (WYSIWYG) software. 1502 Demonstrate proper use of an HTML text editor. 1503 Create tables in HTML. 1504 Add color and format text. 1505 RESERVED 1506 Create hyperlinks. 1507 Proofread and edit a website.	**Refer to the end of this document for an explanation of the following standards and sample indicators:** CC TECH CORE STANDARDS: INFORMATION TECH.	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A Standard PCS.3.5.9-10.B Standard PCS.3.5.9-10.C *GRADES 11-12* Standard PCS.3.5.11-12A Standard PCS.3.5.11-12.B	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A Standard PCS.3.6.9-10.B *GRADES 11-12* Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	**NUMBERS AND OPERATIONS** Standard PCS.2.1.HS.F.1 Standard PCS.2.1.HS.F.2 Standard PCS.2.1.HS.F.3

1508	Test a website.	IT 11	Standard PCS.3.5.11-12.C		Standard PCS.2.1.HS.F.4
1509	Demonstrate publishing, updating, and maintaining a website.		**CRAFT AND STRUCTURE**	**PRODUCTION AND DISTRIBUTION OF WRITING**	Standard PCS.2.1.HS.F.5
1510	Critique a website according to accepted website design principles.	WEB AND DIGITAL COMMUNICATION IT-WD 01	*GRADES 9-10* Standard PCS.3.5.9-10.D	*GRADES 9-10*	Standard PCS.2.1.HS.F.6
1511	Insert an image in a webpage.	IT-WD 02	Standard PCS.3.5.9-10.E	Standard PCS.3.6.9-10.C	Standard PCS.2.1.HS.F.7
1512	Obtain and optimize graphics.	IT-WD 03	Standard PCS.3.5.9-10.F	Standard PCS.3.6.9-10 D	
1513	RESERVED	IT-WD 04	*GRADES 11-12*	Standard PCS.3.6.9-10.E	
1514	Add audio and video to a site.	IT-WD 05	Standard PCS.3.5.11-12.D	*GRADES 11-12*	
1515	Add animation to a website.	IT-WD 06	Standard PCS.3.5.11-12.E	Standard PCS.3.6.11-12 C	
1516	Examine and demonstrate knowledge of emerging trends in website design.	IT-WD 07 IT-WD 08	Standard PCS.3.5.11-12.F	Standard.PCS.3.6.11-12.D	
1517	RESERVED	IT-WD 09		Standard PCS.3.6.11- 12 E	
1518	Use Search Engine Optimization (SEO) techniques in websites.	IT-WD 10	**INTEGRATE KNOWLEDGE/IDEAS**		
1519	Generate and analyze a site report.		*GRADES 9-10*	**RANGE OF WRITING**	
1520	Demonstrate knowledge of web server technology.		Standard PCS.3.5.9-10.G	*GRADES 9-10*	
1521	RESERVED		Standard PCS.3.5.9-10.H	Standard PCS.3.5.9-10.I	
			Standard PCS.3.5.9-10.I	*GRADES 11-12*	
			GRADES 9-12	Standard CC.3.5.11-12.I	
			Standard PCS.3.5.11-12.G		
			Standard PCS.3.5.11-12.H		
			Standard PCS.3.5.11-12.I		
1600	**CASCADING STYLES.**				
1601	Discuss the use of CSS (Cascading Style Sheets) in web development.	**Refer to the end of this document for an explanation of the following standards and sample indicators:**	**KEY IDEAS/DETAILS** *GRADES 9-10* Standard PCS.3.5.9-10.A	**TEXT TYPES/ PURPOSE** *GRADES 9-10* Standard PCS.3.6.9-10.A	
1602	Create and utilize inline styles to change page attributes.		Standard PCS.3.5.9-10.B	Standard PCS.3.6.9-10.B	
1603	Create and utilize embedded styles to change page attributes.	CC TECH CORE STANDARDS:	Standard PCS.3.5.9-10.C *GRADES 11-12*	*GRADES 11-12*	
1604	Implement an ID selector to apply and identify style rules.	INFORMATION TECH. IT 11	Standard PCS.3.5.11-12A	Standard PCS.3.6.11-12.A Standard PCS.3.6.11-12.B	
1605	Implement a DIV element to separate content on a webpage.		Standard PCS.3.5.11-12.B Standard PCS.3.5.11-12.C		
1606	Implement a class selector.	WEB AND DIGITAL COMMUNICATION		**PRODUCTION AND DISTRIBUTION OF WRITING**	
1607	Create and link an external style sheet.		**CRAFT AND STRUCTURE**		

		GRADES 9-10	GRADES 9-10	
	IT-WD 01	*GRADES 9-10*	*GRADES 9-10*	
	IT-WD 02	Standard PCS.3.5.9-10.D	Standard PCS.3.6.9-10.C	
	IT-WD 03	Standard PCS.3.5.9-10.E	Standard PCS.3.6.9-10 D	
	IT-WD 04	Standard PCS.3.5.9-10.F	Standard PCS.3.6.9-10.E	
	IT-WD 05	*GRADES 11-12*	*GRADES 11-12*	
	IT-WD 06	Standard PCS.3.5.11-12.D	Standard PCS.3.6.11-12 C	
	IT-WD 07	Standard PCS.3.5.11-12.E	Standard.PCS.3.6.11-12.D	
	IT-WD 08	Standard PCS.3.5.11-12.F	Standard PCS.3.6.11- 12 E	
	IT-WD 09			
	IT-WD 10	**INTEGRATE KNOWLEDGE/IDEAS**	**RANGE OF WRITING**	
		GRADES 9-10	*GRADES 9-10*	
		Standard PCS.3.5.9-10.G	Standard PCS.3.5.9-10.I	
		Standard PCS.3.5.9-10.H	*GRADES 11-12*	
		Standard PCS.3.5.9-10.I	Standard CC.3.5.11-12.I	
		GRADES 9-12		
		Standard PCS.3.5.11-12.G		
		Standard PCS.3.5.11-12.H		
		Standard PCS.3.5.11-12.I		

**REFERENCE LIST FOR COMMON CORE TECHNICAL STANDARDS IN THE
INFORMATION TECHNOLOGY CLUSTER WITH SAMPLE INDICATORS FOR EACH STANDARD**

IT 01 Demonstrate effective professional communication skills and practices that enable positive customer relationships.
   a.   Identify organization's products and services (including own strengths as an agent of the company).
   b.   Recognize the importance of all customers to the business.

IT 02 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
   a.   Test products for reliability.
   b.   Initiate predictive maintenance procedures.
         Document a Quality Assurance (QA) program (includes creating a plan and evaluating effectiveness of the program).
   c.   Plan for products/services using reliability factors.
   d.   Create products/services using reliability factors.
   e.   Test new products/services for reliability.

f.   Maintain the reliability of new products/services.

IT 03 Demonstrate the use of cross functional teams in achieving IT project goals.
   a.   Consider the benefits of using a cross functional team in policy and procedure development.
   b.   Identify desired group and team behavior in an IT context.
   c.   Explain technical concepts to various audiences in nontechnical terms.
   d.   Describe strategies for maximizing productivity in a high tech environment.

IT 04 Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.
   a.   Demonstrate knowledge of the legal issues that face IT professionals.
   b.   Identify issues and trends affecting computers and information privacy.
   c.   Explain legal issues involved in a company security policy.
   d.   Identify legal issues involved concerning a security breach.
   e.   Summarize the rights and responsibilities of IT workers.
   f.   Identify ethical issues common to the IT field.

IT 05 Explain the implications of IT on business development.
   a.   Demonstrate knowledge of how both PCs and larger computer systems impact people and are used in business/industry/government and other institutions.
   b.   Demonstrate knowledge of the impact of computers on career pathways in business/industry (e.g., how computers have eliminated and created jobs).
   c.   Demonstrate knowledge of the impact of computers on access to information and information exchange worldwide.
   d.   Demonstrate knowledge of ethical issues that have surfaced in the information age.

IT 06 Describe trends in emerging and evolving computer technologies and their influence on IT practices.
   a.   Identify new technologies relevant to information technology.
   b.   Assess the importance of new technologies to future developments and to future knowledge worker productivity.
   c.   Identify new and emerging drivers and inhibitors of information technology change.
   d.   Assess the potential importance and impact of new IT technologies in the future.

IT 07 Perform standard computer backup and restore procedures to protect IT information.
   a.   Recognize the need for regular backup procedures.
   b.   Load backup software.
   c.   Load compression drive backup software.
   d.   Install surge suppression protection.
   e.   Identify battery backup equipment.
   f.   Maintain battery backup system.
   g.   Identify hot and warm site backup concepts.

IT 08 Recognize and analyze potential IT security threats to develop and maintain security requirements.
   a.   Describe potential security threats to information systems.

b. Identify the range of security needs and the problems that can occur due to security lapses.
c. Maximize threat reduction.
d. Assess exposure to security issues.
e. Implement countermeasures.
f. Ensure compliance with security rules, regulations and codes.
g. Demonstrate knowledge of virus protection strategy.
h. Implement security procedures in accordance with business ethics.
i. Develop plans to address secure threats.
j. Document security procedures.
k. Maintain confidentiality.
l. Load virus detection and protection software.
m. Identify sources of virus infections.
n. Remove viruses.
o. Report viruses in compliance with company standards.
p. Implement backup and recovery procedures.
q. Follow disaster plan.
r. Provide for user authentication and restricted access (e.g., assign passwords, access level).

IT 09 Describe quality assurance practices and methods employed in producing and providing quality IT products and services.
a. Demonstrate knowledge of the historical evolution of quality assurance/total quality management (e.g., Deming, ISO 9000).
b. Demonstrate knowledge of changes brought about by quality leaders in the world.
c. Demonstrate knowledge of the ISO 9000 process.
d. Demonstrate knowledge of the standards/requirements for the Baldridge award.
e. Demonstrate knowledge of successful efforts by industry to improve quality and/or reduce costs.
f. Demonstrate knowledge of the control devices used in functional areas (e.g., SPC, equipment).
g. Demonstrate knowledge of the relationship among organizational structures, policies, procedures and quality assurance.
h. Identify internal and external customers.
i. Differentiate between prevention and detection.
j. Differentiate between variable and attribute data.
k. Identify types of control charts.
l. Demonstrate knowledge of how statistical techniques are used to control quality (e.g., SPC, DOE, CR).
m. Demonstrate knowledge of quality management terminology.
n. Identify the role of quality within the organization.
o. Identify the features and benefits of quality planning.

IT 10 Describe the use of computer forensics to prevent and solve information technology crimes and security breaches.
a. Define computer forensics.
b. List some of the basic skills and knowledge a computer forensics specialist should possess.
c. Identify the circumstances under which computer forensics evidence is typically used, who typically uses such evidence and how it is used.

    d.   Identify and attempt to retrieve possible evidence that may exist on a computer system.
           List what should and should not be done with the computer and evidence during an investigation.
    e.   List common internet crimes.
    f.   List some prevention actions related to cyber crime.
    g.   Describe techniques to identify criminal activity.
    h.   Identify how one files a complaint if a cyber crime is suspected or has occurred.

IT 11 Demonstrate knowledge of the hardware components associated with information systems.

IT 12 Compare key functions and applications of software and determine maintenance strategies for computer systems.

STANDARDS FOR THE WEB AND DIGITAL COMMUNICATIONS CAREER PATHWAY
IT-WD 01 Analyze customer requirements to design and develop a web or digital communication product.
IT-WD 02 Apply the design and development process to produce user focused web and digital communications solutions.
IT-WD 03 Write product specifications that define the scope of work aligned to customer requirements.
IT-WD 04 Demonstrate the effective use of tools for digital communication production, development and project management.
IT-WD 05 Develop, administer and maintain web applications.
IT-WD 06 Design, create and publish a digital communication product based on customer needs.
IT-WD 07 Evaluate the functionality of a digital communication product using industry accepted techniques and metrics.
IT-WD 08 Implement quality assurance processes to deliver quality digital communication products and services.
IT-WD 09 Perform maintenance and customer support functions for digital communication products.
IT-WD 10 Comply with intellectual property laws, copyright laws and ethical practices when creating web/digital communications.