

**Career Technical Education (CTE) Course Outline**

<b>Course Title:</b>	Microcomputer Applications/5: IC3 Certification Preparation
<b>Course Number:</b>	75-35-92
<b>Date:</b>	July 2024
<b>Industry Sector:</b>	Business and Finance
<b>Pathway:</b>	Business Management
<b>CBEDS Title:</b>	Business Communications
<b>CBEDS Code:</b>	4623
<b>Credits:</b>	5

**Hours:**

Total
75

**Course Description:**

This competency-based course is the last in a sequence of five designed for computer operation. It provides students with technical instruction and practical experience in fulfilling the requirements of the Internet and Computing Core Certificate (IC<sup>3</sup>) Program, a global training and certification program for students and employees who want to excel in a digital world. IC<sup>3</sup> Certification consists of three core certification exams: Computing Fundamentals, Key Applications, and Living On-Line. The competencies in this course are aligned with the California High School Academic Content Standards and the California Career Technical Education Model Curriculum Standards.

<b>Prerequisites:</b>	Successful completion of the Microcomputer Applications/1: Word Processing (75-35-82), Microcomputer Applications/2: Spreadsheet (75-35-84), Microcomputer Applications/3: Presentations (75-35-88) and Microcomputer Applications/4: Database Management (75-35-92) courses highly recommended.
<b>NOTE:</b>	For Perkins purposes this course has been designated as a <b>capstone</b> course.  This course <b>can</b> be repeated once a student receives a Certificate of Completion.
<b>A-G Approval</b>	N/A
<b>Methods of Instruction:</b>	Lectures and discussion, demonstrations, student hands-on practice, individualized instruction, critical thinking and listening skills, and peer teaching and cooperative learning.
<b>Student Evaluation:</b>	Summative: End of section assessments
<b>Industry Certification:</b>	N/A
<b>Recommended Texts:</b>	Wong, Sue; Heer, Irina, Hegedus, Kelly; Yulo, Kevin. <u><a href="#">IC3 Certification Guide Using Microsoft Windows 10 &amp; Microsoft Office 2016</a></u> , Cengage Learning Publisher, 2018.  Wong, Sue; Heer, Irina, Hegedus, Kelly; Yulo, Kevin. <u><a href="#">IC3 Internet and Computing Core Certification Guide, IC3</a></u> , CCI Learning Publisher, 2016.
<b>Link to Resource Folder</b>	<a href="https://bit.ly/ic3certificationresources">https://bit.ly/ic3certificationresources</a>

Approved by: Renny L. Neyra, Executive Director

COMPETENCY AREAS AND STATEMENTS	MINIMAL COMPETENCIES	STANDARDS
---------------------------------	----------------------	-----------

**I. COMPUTING FUNDAMENTALS**

Computing Fundamentals Exam covers subjects needed for a foundational understanding of computing, including knowledge and use of operating systems, computer hardware, network and mobile devices, file management, software, cloud computing, security, and maintenance.

<p><b>IA. OPERATING SYSTEMS</b></p> <p>Learn and apply the features and functions of modern operating systems.</p> <p>(4 hours)</p>	<ol style="list-style-type: none"> <li>1. Describe the different operating systems.</li> <li>2. Explain the procedures on how to power on and power off.</li> <li>3. Describe the Windows login screen.</li> <li>4. Identify the different parts of the Windows desktop.</li> <li>5. Explain and demonstrate how to:               <ol style="list-style-type: none"> <li>a. work with menus</li> <li>b. use dialog boxes</li> <li>c. manage multiple Windows</li> <li>d. close Windows</li> <li>e. use the start button (Windows key) and the taskbar</li> <li>f. access the control panel and settings app</li> <li>g. run the operating system updates</li> <li>h. use the features of mobile operating systems</li> </ol> </li> <li>6. Describe changing display properties and settings.</li> <li>7. Describe customizing/personalizing the background.</li> <li>8. Describe the ease of access settings.</li> <li>9. Pass an operating system assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>IB. HARDWARE</b></p> <p>Learn and evaluate different types of computers, computer hardware components</p>	<ol style="list-style-type: none"> <li>1. Define and explain device drivers, hardware, firmware, and platforms.</li> <li>2. Define, explain, and demonstrate measuring capacity, frequency, and bandwidth.</li> <li>3. Define, explain, and discuss Random Access Memory (RAM) and storage devices.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics:</p>

<p>and examine ways to connect devices.</p> <p>(4 hours)</p>	<ol style="list-style-type: none"> <li>4. Define, explain, and identify different types of computers:             <ol style="list-style-type: none"> <li>a. servers</li> <li>b. desktop computers</li> <li>c. laptops</li> <li>d. notebook computers</li> <li>e. Chromebooks</li> <li>f. tablets</li> <li>g. smart phones</li> </ol> </li> <li>5. Explain and identify the following output devices:             <ol style="list-style-type: none"> <li>a. keyboards</li> <li>b. pointing devices</li> <li>c. touch screens</li> </ol> </li> <li>6. Explain smartphone hardware items:             <ol style="list-style-type: none"> <li>a. Subscriber Identity Module (SIM)</li> <li>b. Smart Phone Keyboard/Dial Pad</li> </ol> </li> <li>7. Explain Windows power plan settings.</li> <li>8. Demonstrate how to connect peripherals such as:             <ol style="list-style-type: none"> <li>a. video ports and connectors</li> <li>b. network port and connectors</li> <li>c. audio ports and connectors</li> <li>d. USB ports and connectors</li> </ol> </li> <li>9. Define and explain wireless connection technologies:             <ol style="list-style-type: none"> <li>a. Bluetooth</li> <li>b. infrared</li> </ol> </li> <li>10. Pass a hardware assessment with a 90% score or higher.</li> </ol>	<p>1.0</p> <p>Communications: 2.1, 2.3, 2.5</p> <p>Technology: 4.2</p> <p>Technical Knowledge &amp; Skills: 10.1</p> <p>Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>1C. NETWORK &amp; MOBILE DEVICES</b></p> <p>Learn, apply, and evaluate networking concepts.</p>	<ol style="list-style-type: none"> <li>1. Define and describe a network and its benefits.</li> <li>2. Explain how Internet connection sharing impacts the network.</li> <li>3. Define and explain basic network technology:             <ol style="list-style-type: none"> <li>a. TCP/IP</li> <li>b. LANs and WANs</li> <li>c. IP addresses</li> </ol> </li> <li>4. Explain the process of obtaining and selecting Internet service providers.</li> <li>5. Explain connecting peripheral devices from the Internet to LAN:             <ol style="list-style-type: none"> <li>a. broadband modems</li> <li>b. broadband routers</li> <li>c. public and private IP addresses</li> </ol> </li> <li>6. Explain wired/wireless connections to the Internet:             <ol style="list-style-type: none"> <li>a. Ethernet</li> <li>b. Network Interface Card (NIC)</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4</p> <p><b>CTE Anchor:</b> Academics: 1.0</p> <p>Communications: 2.1, 2.3, 2.5</p> <p>Technology: 4.2, 4.3</p> <p>Technical Knowledge &amp; Skills:</p>

<p>(6 hours)</p>	<ul style="list-style-type: none"> <li>c. advantages and disadvantages of wired/wireless connections</li> <li>d. adding a shared printer to the wired/wireless LAN</li> <li>e. Wi-Fi</li> <li>f. adapter signals and band</li> <li>g. wireless security</li> <li>h. connecting computer to a WLAN</li> <li>i. Wi-Fi protected setup (WPS)</li> <li>j. adding a network printer to the WLAN</li> </ul> <p>7. Explain the setup process of a cellular network:</p> <ul style="list-style-type: none"> <li>a. cellular generations</li> <li>b. cellular carriers</li> <li>c. network coverage</li> <li>d. internet service</li> <li>e. cellular service to include contract services, prepaid services, and plan add-on</li> <li>f. cellular devices to include smartphone, basic cell phone, cellular enabled tablet, mobile data</li> </ul> <p>8. Explain the advantage and disadvantages of a hardwired phone:</p> <ul style="list-style-type: none"> <li>a. Private Branch Exchange (PBX)</li> <li>b. business telephones</li> </ul> <p>9. Explain the setup process of leaving a clear voice message in voicemail.</p> <p>10. Pass a network &amp; mobile devices assessment with a 90% score or higher.</p>	<p>10.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>ID. FILE MANAGEMENT</b></p> <p>Learn, apply, and evaluate the management techniques for computer file systems.</p>	<ul style="list-style-type: none"> <li>1. Explain file management concepts.</li> <li>2. Explain and describe File Explorer.</li> <li>3. Explain and demonstrate folders and directory structure.</li> <li>4. Describe "This PC."</li> <li>5. Set "This PC" options.</li> <li>6. Access a storage drive.</li> <li>7. Recognize different types of files.</li> <li>8. Work with files, folders, and the Recycle Bin.</li> <li>9. Describe naming folders and files.</li> <li>10. Demonstrate and explain how to <ul style="list-style-type: none"> <li>a. find/sort files</li> <li>b. copy/move files</li> </ul> </li> <li>11. View the contents of a drive or folder.</li> <li>12. Explain displaying file properties.</li> <li>13. Describe the default file locations.</li> <li>14. Share files with other users.</li> </ul>	<p><b>Career Ready Practice:</b> 1, 2, 4, 5, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Problem Solving &amp; Critical Thinking:</p>

<p>(5 hours)</p>	<ol style="list-style-type: none"> <li>15. Work with zip/unzip (compressed/uncompressed) files.</li> <li>16. Describe and demonstrate running an application from File Explorer.</li> <li>17. Explain the functionality of the run command.</li> <li>18. Pass a file management assessment with a 90% score or higher.</li> </ol>	<p>5.2          Technical Knowledge &amp; Skills:          10.1          Demonstration &amp; Application:          11.1</p> <p><b>CTE Pathway:</b>          A7.1, A7.2, A7.4</p>
<p><b>1E. SOFTWARE</b></p> <p>Learn how to obtain, install, configure, and manage software/apps.</p> <p>(4 hours)</p>	<ol style="list-style-type: none"> <li>1. Define and explain the benefits of software.</li> <li>2. Demonstrate the process of installing, uninstalling, repairing, and updating apps and applications.</li> <li>3. Explain and demonstrate how to:             <ol style="list-style-type: none"> <li>a. set the software preferences</li> <li>b. work with Windows Apps</li> </ol> </li> <li>4. Explain and discuss messaging applications.</li> <li>5. Explain the differences between locally-installed vs. cloud-based software.</li> <li>6. Pass a software assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b>          1, 2, 4, 5, 10</p> <p><b>CTE Anchor:</b></p> <p>Academics:          1.0</p> <p>Communications:          2.1, 2.3, 2.5</p> <p>Technology:          4.2, 4.3</p> <p>Problem Solving &amp; Critical Thinking:          5.3</p> <p>Technical Knowledge &amp; Skills:          10.1          Demonstration &amp; Application:          11.1</p> <p><b>CTE Pathway:</b>          A7.1, A7.2, A7.4</p>

<p><b>1F. CLOUD COMPUTING</b></p> <p>Learn, apply, and evaluate cloud computing.</p> <p>(4 hours)</p>	<ol style="list-style-type: none"> <li>1. Discuss and explain the benefits of cloud computing and hosting services.</li> <li>2. Explain and demonstrate the different locations where you can save your document(s): <ol style="list-style-type: none"> <li>a. cloud accounts</li> <li>b. storage on google drive</li> <li>c. google drive mobile apps</li> <li>d. Microsoft One Drive</li> <li>e. iCloud</li> <li>f. Dropbox</li> </ol> </li> <li>3. Explain the different types of cloud-based applications: <ol style="list-style-type: none"> <li>a. Learning Management System (LMS)</li> <li>b. Customer Relationship Management (CRM) software</li> </ol> </li> <li>4. Discuss the setup of mobile notifications.</li> <li>5. Pass a cloud computing assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2, 4.3 Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>1G. SECURITY AND MAINTENANCE</b></p> <p>Learn, apply, and evaluate computer security and maintenance.</p>	<ol style="list-style-type: none"> <li>1. Explain the importance of security and maintenance.</li> <li>2. Discuss the selection of username, passwords, and keeping accounts safe.</li> <li>3. Identify security risks pertaining to: <ol style="list-style-type: none"> <li>a. viruses</li> <li>b. Trojans</li> <li>c. malware (spyware/adware)</li> <li>d. network connection using public computers</li> <li>e. social engineering</li> <li>f. phishing</li> </ol> </li> <li>4. Discuss the various methods to protect your identity: <ol style="list-style-type: none"> <li>a. antivirus software</li> <li>b. firewalls</li> <li>c. monitoring software</li> <li>d. conducting safe e-commerce transactions</li> <li>e. Virtual Private Networks (VPNs)</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 8, 10</p> <p><b>CTE Anchor:</b> Academics 1.0 Communications: 2.1, 2.3, 2.5, 2.6 Technology: 4.2, 4.3 Ethics &amp; Legal Responsibilities: 8.3, 8.4, 8.6, 8.7</p>



(6 hours)	<ol style="list-style-type: none"> <li>5. Identify and demonstrate if an antivirus software is installed on a computer.</li> <li>6. Explain the process to backup and restore: <ol style="list-style-type: none"> <li>a. personal files</li> <li>b. PC system files and settings</li> <li>c. mobile data</li> <li>d. factory reset options for PC</li> <li>e. reset mobile devices</li> </ol> </li> <li>7. Explain hardware or software pertaining to troubleshooting connection issues.</li> <li>8. Pass a security and maintenance assessment with a 90% score or higher.</li> </ol>	<p>Technical Knowledge &amp; Skills: 10.1, 10.2</p> <p>Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
-----------	--	--

## II. APPS AND APPLICATIONS

Understand common computer applications such as word processing, spreadsheet, database operations, and presentation graphics.

<p><b>2A. WORD</b></p> <p>Learn, apply, and evaluate basic word processing techniques.</p>	<ol style="list-style-type: none"> <li>1. Start and exit an application.</li> <li>2. Understand the Backstage View.</li> <li>3. Looking at the edit screen, assessing commands, and features.</li> <li>4. Navigate through a document</li> <li>5. Explain, describe, and demonstrate how to enter and edit text.</li> <li>6. Demonstrate using the rulers and selecting text.</li> <li>7. Understand the process of managing files by: <ol style="list-style-type: none"> <li>a. saving documents</li> <li>b. starting a new document</li> <li>c. closing a document</li> <li>d. opening a document</li> </ol> </li> <li>8. Practice manipulating text by: <ol style="list-style-type: none"> <li>a. customizing the view</li> <li>b. using undo</li> <li>c. using repeat or redo</li> <li>d. using cut, copy, and paste</li> <li>e. using find and replace</li> </ol> </li> <li>9. Demonstrate how to apply formatting to: <ol style="list-style-type: none"> <li>a. enhance text characters</li> <li>b. enhance paragraphs</li> <li>c. understand tab settings</li> </ol> </li> <li>10. Review formatting a document by: <ol style="list-style-type: none"> <li>a. changing paper size</li> <li>b. changing orientation</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
--	--	--

<p>(5 hours)</p>	<ul style="list-style-type: none"> <li>c. changing margins</li> <li>d. adding and removing page numbers</li> <li>e. adding and removing columns</li> <li>f. adding and removing page and section breaks</li> </ul> <ol style="list-style-type: none"> <li>11. Demonstrate how to prepare a document for printing to: <ul style="list-style-type: none"> <li>a. proof the document</li> <li>b. print preview the document</li> <li>c. print the document</li> </ul> </li> <li>12. Work with pictures, multimedia files, and manipulating objects.</li> <li>13. Review modifying a table by: <ul style="list-style-type: none"> <li>a. inserting a table</li> <li>b. formatting text in a table</li> <li>c. formatting a table</li> <li>d. inserting or deleting rows/columns/cells</li> <li>e. adjusting width/height</li> <li>f. merging and splitting cells</li> </ul> </li> <li>14. Explain how to track changes.</li> <li>15. Pass a word assessment with a 90% score or higher.</li> </ol>	
<p><b>2B. EXCEL</b></p> <p>Learn, apply, and evaluate the application techniques for basic spreadsheets.</p>	<ol style="list-style-type: none"> <li>1. Review Excel screen: <ul style="list-style-type: none"> <li>a. understand basic terminology</li> <li>b. enter data in the worksheet</li> <li>c. navigate the worksheet</li> </ul> </li> <li>2. Demonstrate how to manage workbooks by: <ul style="list-style-type: none"> <li>a. creating a blank workbook</li> <li>b. creating a new workbook from a template</li> <li>c. saving workbooks</li> <li>d. opening workbooks</li> <li>e. closing workbooks</li> </ul> </li> <li>3. Demonstrate how to manipulate the content of a workbook: <ul style="list-style-type: none"> <li>a. selecting cells</li> <li>b. using undo or repeat</li> <li>c. copying and moving data</li> <li>d. changing the column widths</li> <li>e. adjusting row height</li> <li>f. adjusting rows, columns, or cells</li> </ul> </li> <li>4. Create simple formulas and use: <ul style="list-style-type: none"> <li>a. common built-in functions</li> <li>b. absolute and relative cell references (addresses)</li> </ul> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p>

<p>(5 hours)</p>	<ol style="list-style-type: none"> <li>5. Demonstrate how to format the data in a worksheet by: <ol style="list-style-type: none"> <li>a. changing numbers and decimals</li> <li>b. changing cell alignment</li> <li>c. changing font and sizes</li> <li>d. applying cell borders</li> <li>e. applying colors and patterns</li> </ol> </li> <li>6. Explain how to work with charts by: <ol style="list-style-type: none"> <li>a. selecting chart types</li> <li>b. changing the chart layout</li> </ol> </li> <li>7. Explain how to work with lists and databases by: <ol style="list-style-type: none"> <li>a. sorting data</li> <li>b. filtering information</li> <li>c. understanding Excel databases</li> </ol> </li> <li>8. Demonstrate how to modify and format table data.</li> <li>9. Explain how to finalize the print output by printing the worksheet.</li> <li>10. Pass an Excel assessment with a 90% score or higher.</li> </ol>	<p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>2C. ACCESS</b></p> <p>Learn, apply, and evaluate the application techniques for basic databases.</p> <p>(5 hours)</p>	<ol style="list-style-type: none"> <li>1. Define the following terms: <ol style="list-style-type: none"> <li>a. data</li> <li>b. database</li> <li>c. spreadsheet database</li> <li>d. Relational Database Management System (RDBMS)</li> <li>e. multiple related tables</li> </ol> </li> <li>2. Explain the different types of database tables: <ol style="list-style-type: none"> <li>a. table metadata</li> <li>b. primary key</li> <li>c. table relationship – foreign keys</li> <li>d. database metadata</li> </ol> </li> <li>3. Understand the database queries and database forms.</li> <li>4. Explain and demonstrate how a database is used in: <ol style="list-style-type: none"> <li>a. databases and websites</li> <li>b. queries on the web</li> <li>c. forms on the web</li> </ol> </li> <li>5. Pass an Access assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Technical Knowledge &amp; Skills: 10.1 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>

<p><b>2D. POWERPOINT</b></p> <p>Learn, apply, and evaluate basic techniques for creating and utilizing presentation graphics.</p> <p>(5 hours)</p>	<ol style="list-style-type: none"> <li>1. Define, review, and edit the PowerPoint screen.</li> <li>2. Demonstrate how to work with presentations: <ol style="list-style-type: none"> <li>a. creating a presentation</li> <li>b. saving a presentation</li> <li>c. closing a presentation</li> <li>d. opening a presentation</li> <li>e. displaying information in the presentation</li> </ol> </li> <li>3. Demonstrate how to manage slides by: <ol style="list-style-type: none"> <li>a. inserting new slides</li> <li>b. changing the slide layout</li> <li>c. changing the slide background</li> <li>d. deleting slides</li> <li>e. rearranging the slides</li> </ol> </li> <li>4. Demonstrate how to manage slide objects by: <ol style="list-style-type: none"> <li>a. using select vs. edit mode</li> <li>b. manipulating text</li> <li>c. inserting pictures</li> <li>d. inserting media objects</li> </ol> </li> <li>5. Demonstrate how to animate objects by: <ol style="list-style-type: none"> <li>a. customizing the animation</li> <li>b. applying slide transitions</li> </ol> </li> <li>6. Explain the process of how to: <ol style="list-style-type: none"> <li>a. set up and view slide shows</li> <li>b. consider the proper hardware components</li> <li>c. use Presenter View</li> </ol> </li> <li>7. Explain the process of sharing the presentation by: <ol style="list-style-type: none"> <li>a. using the share tab</li> <li>b. using the export tab</li> <li>c. creating handouts and outlines in Word.</li> <li>d. publishing the presentations</li> <li>e. printing the slides</li> </ol> </li> <li>8. Pass a PowerPoint assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2, 4.3 Technical Knowledge &amp; Skills: 10.1, 10.3 Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
--	---	---

### III. LIVING ONLINE

Demonstrate the ability to use the Internet, manage media literacy and digital communications, understand email, contacts, and calendaring, and share information using social media.

<p><b>3A. LOOKING AT THE INTERNET</b></p>	<ol style="list-style-type: none"> <li>1. Identify and define connected communities by: <ol style="list-style-type: none"> <li>a. introducing the Internet</li> <li>b. backbone</li> <li>c. hardware</li> </ol> </li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p>
---	---	--

<p>Learn and evaluate the different Internet applications.</p>	<ul style="list-style-type: none"> <li>d. public networks</li> <li>e. private networks</li> <li>f. specifying a network connection type</li> </ul> <ol style="list-style-type: none"> <li>2. How to find computers on the Internet and review: <ul style="list-style-type: none"> <li>a. IP address</li> <li>b. Domain Name System (DNS)</li> </ul> </li> <li>3. Understand the purpose of domain names and domain levels.</li> <li>4. Understand the Uniform Resource Locator (URL) components: <ul style="list-style-type: none"> <li>a. protocol identifier</li> <li>b. path and file names in URLs</li> </ul> </li> <li>5. Define and explain the following terms: <ul style="list-style-type: none"> <li>a. World Wide Web (WWW)</li> <li>b. web page</li> <li>c. HTML</li> <li>d. CSS</li> <li>e. hyperlinks</li> <li>f. browser</li> <li>g. address bar</li> <li>h. scroll bars</li> <li>i. browser windows</li> <li>j. tabs</li> <li>k. hyperlinks in the browser</li> <li>l. popular browsers</li> </ul> </li> <li>6. Review the browser navigation tools: <ul style="list-style-type: none"> <li>a. back button</li> <li>b. forward button</li> <li>c. refresh button</li> <li>d. home page</li> <li>e. start page</li> <li>f. settings</li> </ul> </li> <li>7. Review the browser function and features: <ul style="list-style-type: none"> <li>a. uploading</li> <li>b. downloading</li> <li>c. searching from the address bar</li> <li>d. favorites/bookmarks</li> </ul> </li> <li>8. Review and demonstrate the browser preferences and settings: <ul style="list-style-type: none"> <li>a. handling pop-ups</li> <li>b. cookies</li> <li>c. autofill/autocomplete</li> <li>d. browser cache</li> <li>e. browsing history</li> <li>f. private browser</li> </ul> </li> </ol>	<p><b>CTE Anchor:</b></p> <p>Academics: 1.0</p> <p>Communications: 2.1, 2.3, 2.5</p> <p>Technology: 4.2</p> <p>Technical Knowledge &amp; Skills: 10.1</p> <p>Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
--	--	--

<p>(5 hours)</p>	<ol style="list-style-type: none"> <li>9. Explain and demonstrate the extending browser functionality: <ol style="list-style-type: none"> <li>a. plug-ins/add-ons</li> <li>b. in-browser apps</li> </ol> </li> <li>10. Identify the web standards: <ol style="list-style-type: none"> <li>a. site homepage</li> <li>b. navigation bar</li> <li>c. widgets</li> <li>d. standard pages</li> <li>e. using a mouse on the web</li> </ol> </li> <li>11. Pass a looking at the Internet assessment with a 90% score or higher.</li> </ol>	
<p><b>3B. MANAGING MEDIA LITERACY</b></p> <p>Use information found online in a respectful and legal manner.</p> <p>(4 hours)</p>	<ol style="list-style-type: none"> <li>1. Explain how to use a search engine for information to: <ol style="list-style-type: none"> <li>a. narrow the research results</li> <li>b. search and research social media sites</li> <li>c. validate resources</li> </ol> </li> <li>2. Understand and define copyright issues such as: <ol style="list-style-type: none"> <li>a. intellectual property</li> <li>b. copyright</li> <li>c. licensing</li> <li>d. piracy</li> <li>e. censorship and filtering</li> <li>f. plagiarism</li> </ol> </li> <li>3. Pass managing media literacy assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2 Technical Knowledge &amp; Skills: 10.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>3C. DIGITAL COMMUNICATIONS</b></p> <p>Learn various digital communication technologies.</p>	<ol style="list-style-type: none"> <li>1. Understand digital communication technologies: <ol style="list-style-type: none"> <li>a. real-time (synchronous)</li> <li>b. delayed (asynchronous)</li> </ol> </li> <li>2. Recognize asynchronous communication tools: <ol style="list-style-type: none"> <li>a. electronic mail (email)</li> <li>b. SMS text messages</li> </ol> </li> <li>3. Explain real-time communication technologies: <ol style="list-style-type: none"> <li>a. phone calls</li> <li>b. conference calling</li> <li>c. WebEx</li> </ol> </li> <li>4. Understand Skype features:</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 10</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5</p>

<p>(5 hours)</p>	<ul style="list-style-type: none"> <li>a. adjusting your status</li> <li>b. managing your Skype profile</li> <li>c. group conversations</li> </ul> <ol style="list-style-type: none"> <li>5. Review Google Hangouts.</li> <li>6. Explain online conferencing: <ul style="list-style-type: none"> <li>a. VoIP Conferencing</li> <li>b. video conferencing</li> </ul> </li> <li>7. Recognize collaboration tools: <ul style="list-style-type: none"> <li>a. Office 365</li> <li>b. SharePoint</li> <li>c. Skype for business</li> </ul> </li> <li>8. Explain and demonstrate distance learning technologies: <ul style="list-style-type: none"> <li>a. virtual libraries</li> <li>b. email</li> <li>c. discussion boards</li> <li>d. social networking</li> </ul> </li> <li>9. Explain and demonstrate streaming: <ul style="list-style-type: none"> <li>a. Audible</li> <li>b. Pandora</li> <li>c. Spotify</li> <li>d. Hulu</li> <li>e. Netflix</li> <li>f. YouTube</li> </ul> </li> <li>10. Pass digital communications assessment with a 90% score or higher.</li> </ol>	<p>Technology: 4.2</p> <p>Technical Knowledge &amp; Skills: 10.1</p> <p>Demonstration &amp; Application: 11.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
<p><b>3D. UNDERSTANDING EMAIL, CONTACTS, AND CALENDARING</b></p> <p>Learn, apply, and evaluate the operational techniques for the electronic email and time management system.</p> <p>(3 hours)</p>	<ol style="list-style-type: none"> <li>1. Review using an email program: <ul style="list-style-type: none"> <li>a. creating new messages</li> <li>b. receiving and replying to messages</li> <li>c. using signatures</li> <li>d. working with attachment(s)</li> <li>e. managing spam</li> <li>f. archiving messages</li> <li>g. using contacts</li> <li>h. proofing and sending your message(s)</li> </ul> </li> <li>2. Review using the Gmail calendar by: <ul style="list-style-type: none"> <li>a. creating an appointment</li> <li>b. working with multiple calendars</li> </ul> </li> <li>3. Pass an understanding email, contacts, and calendaring assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5 Technology: 4.2</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>

<p><b>3E. YOUR LIFE ONLINE</b></p> <p>Learn online identity, how to protect it, and the effect on personal health.</p> <p>(5 hours)</p>	<ol style="list-style-type: none"> <li>1. Describe sharing information using social media network: <ol style="list-style-type: none"> <li>a. building the network</li> <li>b. popular social media networks</li> </ol> </li> <li>2. Explain open vs. closed social media networks and their advantages.</li> <li>3. Describe Linked-in to: <ol style="list-style-type: none"> <li>a. create a linked-in account</li> <li>b. create your linkedin profile</li> <li>c. invite connection</li> </ol> </li> <li>4. Explain managing your digital identity: <ol style="list-style-type: none"> <li>a. digital footprints</li> <li>b. digital identity importance</li> <li>c. personal identity</li> <li>d. professional identity</li> </ol> </li> <li>5. Explain online behavior pertaining to cyber bullying.</li> <li>6. Recognize how computers and your health relate to: <ol style="list-style-type: none"> <li>a. coping with change</li> <li>b. disengaging</li> <li>c. ergonomic best practices</li> </ol> </li> <li>7. Pass your life online assessment with a 90% score or higher.</li> </ol>	<p><b>Career Ready Practice:</b> 1, 2, 4, 8</p> <p><b>CTE Anchor:</b> Academics: 1.0 Communications: 2.1, 2.3, 2.5, 2.6 Technology: 4.2, 4.3 Health &amp; Safety: 6.5, 6.6 Ethics &amp; Legal Responsibilities: 8.4 Technical Knowledge &amp; Skills: 10.1</p> <p><b>CTE Pathway:</b> A7.1, A7.2, A7.4</p>
---	--	--



## ***ACKNOWLEDGEMENTS***

Thanks to the following individuals for their contributions in developing and editing this curriculum:

Ana Martinez, Aida Guerrero, Julio C. Navarro, and Julia Rosario