

# INFORMATION TECHNOLOGY FOUNDATIONS

## Principles of Digital Technology (New Name)

*(Effective 2017-18 school year)*

**COURSE CODE: 5181**

**STUDENT PROFILE**

STUDENT'S NAME		TEACHER'S NAME			
School Year/Semester	Date Began	Date Completed	Grade		
<p><b>Directions:</b> Document student's progress using the applicable rating scales below: Enter date of completion under the appropriate column.</p> <p>0 - Has not received instruction in this area / <b>no experience or knowledge of this task (N/A)</b>            1 – Can apply and perform <b>independently (80-100)</b>            2 – Can perform the task completely with <b>limited supervision (70-79)</b>            3 – Requires additional instruction and or <b>close supervision (60-69)</b></p>					
<b>A. SAFETY</b>					
		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Review school safety policies and procedures.				
2	Review classroom safety rules and procedures.				
3	Review safety procedures for using equipment in the classroom.				
4	Identify major causes of work-related accidents in office environments.				
5	Demonstrate safety skills in an office/work environment.				
<b>B. STUDENT ORGANIZATIONS</b>					
		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Identify the purpose and goals of a Career and Technology Student Organization (CTSO).				
2	Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.				
3	Explain the benefits and responsibilities of being a member of a CTSO.				
4	List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.				
5	Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.				
<b>C. TECHNOLOGY KNOWLEDGE</b>					
		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation				
2	Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.				



3	Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.				
4	Explain the consequences of social, illegal, and unethical uses of technology, e.g., piracy; illegal downloading; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment.				
5	Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, documents, video, sounds, music, trademarks, and other elements for personal use.				
6	Describe ethical and legal practices of safeguarding the confidentiality of business-related information.				
7	Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.				
<b>D. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS</b>		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Demonstrate punctuality.				
2	Demonstrate self-representation.				
3	Demonstrate work ethic.				
4	Demonstrate respect.				
5	Demonstrate time management.				
6	Demonstrate integrity.				
7	Demonstrate leadership.				
8	Demonstrate teamwork and collaboration.				
9	Demonstrate conflict resolution.				
10	Demonstrate perseverance.				
11	Demonstrate commitment.				
12	Demonstrate a healthy view of competition				
13	Demonstrate a global perspective.				
14	Demonstrate health and fitness.				
15	Demonstrate self-direction.				
16	Demonstrate lifelong learning.				
<b>E. PROFESSIONAL KNOWLEDGE</b>		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Demonstrate effective speaking and listening skills.				
2	Demonstrate effective reading and writing skills.				
3	Demonstrate mathematical reasoning.				
4	Demonstrate job-specific mathematics skills.				



5	Demonstrate critical-thinking and problem-solving skills.				
6	Demonstrate creativity and resourcefulness.				
7	Demonstrate an understanding of business ethics.				
8	Demonstrate confidentiality.				
9	Demonstrate an understanding of workplace structures, organizations, systems, and climates.				
10	Demonstrate diversity awareness.				
11	Demonstrate job acquisition and advancement skills.				
12	Demonstrate task management skills.				
13	Demonstrate customer-service skills.				
<b>F. COMPUTING FUNDAMENTALS</b>		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	<p>Computer Hardware:</p> <ul style="list-style-type: none"> <li>a. Identify types of computers, how they process information and how individual computers interact with other computing systems and devices.</li> <li>b. Identify the purpose and function of computer hardware components.</li> <li>c. Identify system requirements that go into the decision for purchasing computer equipment.</li> <li>d. Identify how to maintain computer equipment and solve common problems relating to computer hardware.</li> </ul>				
2	<p>Computer Software:</p> <ul style="list-style-type: none"> <li>a. Identify how software and hardware work together to perform computing tasks and how software is developed and upgraded.</li> <li>b. Identify different types of software, general concepts relating to software categories, and the tasks to which each type of software is most suited or not suited.</li> </ul>				
3	<p>Using an Operating System:</p> <ul style="list-style-type: none"> <li>a. Distinguish between common operating systems, e.g. Microsoft Windows, Linux, Mac OS X, Android, and iOS.</li> <li>b. Identify what an operating system is and how it works, and solve common problems related to operating systems.</li> <li>c. Manipulate and control the Windows desktop, files, and disks; identify how to change system settings, install and remove software.</li> </ul>				



4	<p>Digital Communications:</p> <ol style="list-style-type: none"> <li>Identify various digital communication devices.</li> <li>Identify advantages and limitations of digital communication subscriptions.</li> <li>Evaluate functions of digital devices relative to data usage and/or WiFi connectivity.</li> <li>Identify advantages and implications of owning a device, carrier and connection plans, and contracts.</li> <li>Differentiate between SMS and MMS.</li> <li>Evaluate the mechanics and basic features of instant messaging and chat when using Skype, FaceTime, or Google Hangouts, and others.</li> <li>g. Evaluate apps based on abilities and limitations of digital devices.</li> </ol>				
5	<p>Cloud Computing:</p> <ol style="list-style-type: none"> <li>Define cloud computing.</li> <li>Differentiate between cloud storage versus cloud access.</li> <li>Demonstrate collaboration and participation via the cloud.</li> <li>Demonstrate the ability to grant and limit access to shared files in the cloud.</li> <li>Evaluate various online storage apps, e.g. Dropbox, OneDrive, OneNote, Photobucket, and others.</li> <li>Evaluate various online office apps, e.g. Google Apps, Office 365, and others.</li> <li>Compare apps within multiple platforms, e.g. browser, tablet, smartphone, desktop, and others.</li> </ol>				
<b>G. KEY APPLICATIONS</b>		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	<p>Common Functions of Microsoft Application Software:</p> <ol style="list-style-type: none"> <li>Be able to start and exit a program, create, save, manage files, and utilize sources of online help.</li> <li>Identify and perform common editing and formatting functions.</li> <li>Identify and perform common printing functions.</li> </ol>				
2	<p>Basic Word Processing Functions:</p> <ol style="list-style-type: none"> <li>Demonstrate the ability to modify documents, including the ability to use automatic formatting tools.</li> <li>Demonstrate the ability to insert, edit and format tables in a document.</li> <li>Demonstrate the ability to use word processing tools to automate processes such as document review, security, and collaboration.</li> </ol>				



3	<p>Basic Spreadsheet Functions:</p> <ul style="list-style-type: none"> <li>a. Demonstrate the ability to modify and format worksheet data.</li> <li>b. Demonstrate the ability to sort data, manipulate data using formulas and functions.</li> <li>c. Demonstrate the ability to add or modify charts.</li> </ul>				
4	<p>Basic Presentation Software:</p> <ul style="list-style-type: none"> <li>a. Demonstrate the ability to create simple presentations.</li> <li>b. Demonstrate the ability to format simple presentations.</li> </ul>				
5	<p>Basic Database Applications:</p> <ul style="list-style-type: none"> <li>a. Demonstrate the ability to create a basic database.</li> <li>b. Use, query, and navigate a basic database.</li> </ul>				
<b>H. LIVING ONLINE</b>		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	<p>Using the Internet and the World Wide Web:</p> <ul style="list-style-type: none"> <li>a. Differentiate between the World Wide Web and the internet.</li> <li>b. Describe how computers are connected to communication networks and the Internet.</li> <li>c. Demonstrate the ability to create and locate online content.</li> <li>d. Be able to use a standard web browsing application, i.e. Microsoft Internet Explorer/Edge, Mozilla Firefox, Safari, Chrome, Opera, etc.</li> <li>e. Be able to search the Internet for information using a variety of search engines, e.g. Yahoo, Google, Bing, etc.</li> <li>f. Evaluate various websites for valid information including author, content, and audience.</li> </ul>				
2	<p>The Impact of Computing and the Internet on Society</p> <ul style="list-style-type: none"> <li>a. Explain the impact of computing and the Internet on society.</li> <li>b. Identify how computers are used in different areas of work, school, and home.</li> <li>c. Identify the risks of using computer hardware and software.</li> <li>d. Identify how to use the Internet safely, legally, and responsibly.</li> <li>e. Describe threats to a computer network and online accounts, methods of avoiding attacks, and options for dealing with virus attacks.</li> </ul>				



3	<p>Organizing Your Digital Life (Calendaring, Social Media, Online Conferencing, Streaming Media Literacy)</p> <ol style="list-style-type: none"> <li>a. Create events and appointments through an online calendar.</li> <li>b. Create notifications, alerts, and rules.</li> <li>c. Maximize the use of multiple calendars through the use of subscriptions and sharing.</li> <li>d. Differentiate between intranet and internet.</li> <li>e. Demonstrate the use of various Web 2.0 tools: <ol style="list-style-type: none"> <li>1. Blogs, wikis, and forums</li> <li>2. VOIP, video, and phone conferencing</li> <li>3. Screen sharing</li> <li>4. Video, live, and audio streaming including using various devices;</li> </ol> </li> <li>f. Differentiate between streaming and downloading files.</li> <li>g. Describe how electronic communication works and how to communicate using electronic mail, social networks, and other communication methods.</li> </ol>				
4	<p>Obtaining Mobile Apps</p> <ol style="list-style-type: none"> <li>a. Evaluate processes for obtaining and/or purchasing apps.</li> <li>b. Identify different app genres, e.g. productivity, reference, content, creation, social media, music, and health.</li> <li>c. Analyze strengths and limitations of apps and applications in regards to compatibility, productivity, and appropriate device usage.</li> </ol>				

