



## EMPLOYABILITY PROFILE–INFORMATION TECHNOLOGY ACADEMY (ITA)



<b>Student:</b>		<b>Date:</b>	
<b>Year:</b>		<b>Completed by:</b>	

Skill/Knowledge	Description The student has demonstrated their ability to and/or knowledge of:	COURSE LEVEL	Demonstrated level of mastery			
		1-4	4 Expert	3 Proficient	2 Developing	N/A
<b>1. COMPUTER ETHICS</b>						
a. Acceptable Usage	1. Demonstrate ability to understand and follow an Acceptable Use Policy (AUP) 2. Understands that some online behaviors can be harmful personally and to a business	All				
b. Copyright & Fair Use	1. Demonstrates and understand of fair use guidelines 2. Follows copyright policy when working with intellectual property and information available on the Internet.	All				
c. Information Privacy & Security	1. Apply information security rules and procedures in accordance with the established policies of the company or organization 2. Understand ethical behavior as it relates to AUP, Intellectual property, Netiquette, Respecting Privacy, Anti-Spamming Laws, etc.	All				
<b>2. CAREERS IN INFORMATION TECHNOLOGY</b>						
a. Skills/Education/Training/ Certifications	1. Identifies and demonstrates the skills needed by employees to be an effective and valued employee 2. Understands the levels of education as needed to be successful in the area of IT they are most interested in 3. Understands what an IT Industry certification is and how they can affect employability	All				



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<b>3. INFORMATION SUPPORT AND SERVICES</b>						
a. Computer Systems	<ol style="list-style-type: none"> <li>1. Identify the five parts of a computer system (input, processing, storage, output and memory)</li> <li>2. Explain the function and give examples of each of these parts</li> </ol>	1				
b. Computer Forms/Functions	<ol style="list-style-type: none"> <li>1. Recognize the different forms of today's computer systems (Network, Desktop, Portable, Hand-held, wearables, etc.)</li> <li>2. Understand the function of hardware/software/peripherals and power in a computer device</li> </ol>	1				
c. Information/Communications	<ol style="list-style-type: none"> <li>1. Define information technology and recognize the four digital forms of information (audio, pictures, text and video)</li> <li>2. Identify the various ways digital information is accessed</li> <li>3. Recognize the new and emerging fields in IT and their possible impact on how information is communicated in the future</li> </ol>	1				
d. Business Information Systems	<ol style="list-style-type: none"> <li>1. Identify the organizational structure of business and the role that IT plays in the success of today's businesses</li> </ol>	1				
<b>4. INFORMATION TECHNOLOGY TRENDS</b>						
a. Trends in Information Technology	<ol style="list-style-type: none"> <li>1. Understand the pros and cons of new IT technologies (cellphones and texting while driving, entertainment learners, social media addictions)</li> <li>2. Discuss the values and issues with social networking</li> <li>3. Explore the impact of cloud computing and the Internet of Things</li> </ol>	1				



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### COMPUTER HARDWARE & SYSTEM SUPPORT

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<b>1. HARDWARE COMPONENTS</b>						
a. Handling & Safety	1. Demonstrate proper handling and safety considerations for hardware components	2				
b. Hardware	1. Demonstrate proper handling and safety considerations for hardware components 2. Recognize the components of a standard computer system(Motherboard, Hard Drive, Memory, Processor, Power Supply, Expansion slots, etc.) 3. Identify, describe and demonstrate the proper procedures for assembling or disassembling parts of a computer system. 4. Identify, describe and demonstrate the proper procedures for installing replacement or upgraded system components.	2				
c. Hardware Diagnostics	1. Demonstrate the ability to access the CMOS settings 2. Recognizing common startup problems and their causes 3. Follow basic troubleshooting steps for solving problems with a computer systems hardware	2				
d. Input Devices	1. Understand how input devices such as keyboards, light pens, touch screen monitors, mice, joysticks, scanners and cameras operate.	2				
e. Output Devices	1. Recognize and identify the different display systems: VGA, SVGA, HDMI and the cable and ports needed for each device. 2. Demonstrate the ability to change screen resolution, add additional displays including duplication and extension of the screens					



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<b>2. OPERATING SYSTEM SOFTWARE</b>						
a. Operating System Software	<ol style="list-style-type: none"> <li>Recognize and identify different common OS's (Windows, Mac OS, Linux, Android, iOS, etc.)</li> <li>Install, Update, and/or backup an Operating System</li> <li>Show competency in understanding of installing and configuring operating systems</li> </ol>	2				
b. OS Functions	<ol style="list-style-type: none"> <li>Understand and be able to explain the function of system software or operating software</li> <li>Understand the difference between a GUI OS and command line</li> </ol>	2				
c. OS Management Tools	<ol style="list-style-type: none"> <li>Access and utilize the OS Administrative tools</li> <li>Access and utilize the Control Panel features</li> <li>Recognize and utilize preventative maintenance for the OS</li> </ol>	2				
d. OS Troubleshooting	<ol style="list-style-type: none"> <li>Show competency in understanding common troubleshooting symptoms</li> <li>Show competency in understanding common troubleshooting tools</li> </ol>	2				
e. Output Devices	<ol style="list-style-type: none"> <li>Recognize and identify the different display systems: VGA, SVGA, HDMI and the cable and ports needed for each device.</li> <li>Demonstrate the ability to change screen resolution, add additional displays including duplication and extension of the screens</li> </ol>	2				
<b>3. APPLICATION SOFTWARE</b>						
a. Application Software	<ol style="list-style-type: none"> <li>Identify the uses of application software (MS Office, Adobe Suite, etc)</li> <li>Identify sources and licensing of software (commercial, open source, freeware, shareware, creative commons)</li> <li>Install or upgrade application software as requested by customer</li> </ol>					



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<b>4. NETWORKING FUNDAMENTALS</b>						
a. Network Basics	<ol style="list-style-type: none"> <li>1. Understand and describe what a network is and why they are important</li> <li>2. Explain the client/server relationship and demonstrate the ability to setup a peer-to-peer network</li> <li>3. Identify and describe network classifications; LAN, MAN, WAN</li> <li>4. Identify and describe network topologies; bus, ring, star, hybrid, mesh and wireless</li> <li>5. Understand and describe how networks communicate with each other based on how data is packaged; protocols, Ethernet, Token Ring, and Token bus</li> <li>6. Understand and describe network media by type and classification</li> </ol>	2				
c. Network Connections	<ol style="list-style-type: none"> <li>1. Demonstrate the ability to install a network interface card; Ethernet and wireless</li> <li>2. Demonstrate the ability to identify and connect to routers /switch/modems, etc.)</li> <li>3. Identify and describe the use of network medium (phone, CAT, Wireless, Bluetooth, Fiber Optic)</li> <li>4. Describe and identify common network protocols (TCP/IP, FTP, HTTP, HTTPS, etc.)</li> </ol>	2				
d. Networking Operating Systems	<ol style="list-style-type: none"> <li>1. Identify some common network operating systems (MS, Linux, etc.)</li> <li>2. Explain the functions of a NOS</li> </ol>	2				
e. Network Communications	<ol style="list-style-type: none"> <li>1. Compare and contrast wired, wireless, and cell phone networks</li> <li>2. Understand the relationship between media, medium and message</li> </ol>	2				
f. Network Information Storage	<ol style="list-style-type: none"> <li>1. Recognize the equipment used in network storage</li> <li>2. Understand the role of cloud computing, online storage and web apps in network information storage</li> </ol>	2				



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<b>5. LAPTOPS - MOBILE DEVICES - PRINTERS</b>						
a. Laptops	<ol style="list-style-type: none"> <li>1. Identify the internal/external components</li> <li>2. Identify the display functions and components</li> <li>3. Show competency in understanding key laptop features (function keys, safety features)</li> <li>4. Show competency in understanding how to troubleshoot common laptops issues (display, power, input, connectivity)</li> <li>5. Demonstrate the ability to replace/upgrade laptop components safely, using documentation and appropriate hand tools</li> </ol>	2				
b. Mobile Devices	<ol style="list-style-type: none"> <li>1. Identify the top mobile Operating Systems</li> <li>2. Identify the display functions and components (screen orientation, screen calibration, GPS)</li> <li>3. Show competency in understanding the basic hardware, including the ideas of “no field service parts” or “not upgradeable”</li> <li>4. Show competency in understanding how to troubleshoot common mobile device issues (display, power, input, connectivity)</li> <li>5. Recognize the importance of mobile device security (passcode locks, remote wipes, locator apps, remote backup, synchronization, anti-virus protection, updates)</li> </ol>	2				
c. Printers	<ol style="list-style-type: none"> <li>1. Show competency in understanding how to install and do basic maintenance on printers (updates, toner/ink replacement, calibration and maintenance, paper jams, paper feeds)</li> <li>2. Show competency in understanding how to troubleshoot common printing issues (streaks, toner fusing, paper jam, connectivity, printer que)</li> </ol>	2				



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<b>6. COMPUTER SECURITY</b>						
a. Security Threats	<ol style="list-style-type: none"> <li>Identify various threats to a computer system (social engineering, malware, rootkits, phishing, spyware, viruses)</li> <li>Physical theft of laptops and mobile devices (tracer programs)</li> </ol>	2				
b. Threat Prevention	<ol style="list-style-type: none"> <li>Identify physical security for computer systems (cameras, locking stations, etc.)</li> <li>Recognize and show competency in digital security (antivirus software, firewalls, antispyware)</li> </ol>	2				
c. Security Best Practices	<ol style="list-style-type: none"> <li>Explain the use of password protections and strong passwords, screen saver passwords</li> <li>Recognize the need to restricted user permissions, disable guest accounts</li> </ol>	2				
d. Data Destruction/Disposal	<ol style="list-style-type: none"> <li>Perform the following: reformatting, disk wipes, overwrites,</li> <li>Understand the need to physical destruct hard drives: shredding, drilling, electromagnetic)</li> </ol>	2				
e. Security Troubleshooting	<ol style="list-style-type: none"> <li>Show competency in understanding of troubleshooting issues and (pop-ups, browser redirection, security alerts, slow performance, lock ups, update failures, spam, missing files, hijacked email, access denied)</li> <li>Show competency in understanding of troubleshooting tools: (security software, recovery console, event viewers, scheduled scans and updates, system restore points, end user education)</li> </ol>	2				