

ADVANCED COMPUTER REPAIR AND SERVICE
COURSE CODE: 5321
STUDENT PROFILE

STUDENT'S NAME:		TEACHER'S NAME:			
School Year/Semester:		Grade:			
Begin Date:		Date Completed:			

Directions: Document student's progress using the applicable rating scales below: Enter date of completion under the appropriate column.

0 - Has not received instruction in this area / **no experience or knowledge of this task (N/A)**
1 - Can apply and perform **independently (80-100)**
2 - Can perform the task completely with **limited supervision (70-79)**
3 - Requires additional instruction and or **close supervision (60-69)**

A. SAFETY		0	1	2	3
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. STUDENT ORGANIZATIONS		0	1	2	3
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.				
C. TECHNOLOGY KNOWLEDGE		0	1	2	3
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., cyber bullying; piracy; illegal downloading; cyberbullying; 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, Creative Commons, 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.				
D. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS		0	1	2	3
1	Demonstrate punctuality.				
2	Demonstrate critical thinking and problem-solving skills				
3	Demonstrate initiative and self-direction.				
4	Demonstrate integrity.				
5	Demonstrate work ethic.				
6	Demonstrate conflict resolution skills.				
7	Demonstrate listening and speaking skills.				
8	Demonstrate respect for diversity.				
9	Demonstrate customer service orientation.				
10	Demonstrate teamwork.				
E. PROFESSIONAL KNOWLEDGE		0	1	2	3
1	Demonstrate global or “big picture” thinking.				
2	Demonstrate career and life management skills and goal-making.				
3	Demonstrate continuous learning and adaptability skills to changing job requirements.				
4	Demonstrate time and resource management skills.				
5	Demonstrates information literacy skills.				
6	Demonstrates information security skills.				

7	Demonstrates information technology skills.				
8	Demonstrates knowledge and use of job-specific tools and technologies.				
9	Demonstrate job-specific mathematics skills.				
10	Demonstrates professionalism in the workplace.				
11	Demonstrates reading and writing skills.				
12	Demonstrates workplace safety.				
F. MOBILE DEVICES		0	1	2	3
1	1. Identify, install, and configure the laptop hardware and components				
2	Install components within the display of a laptop, (e.g., webcam, microphone, inverter, digitizer/touchscreen etc.)				
3	Demonstrate appropriate use of laptop features, (i.e., special function keys, docking station, port replicator, physical laptop lock and cable lock, rotating/removable screens.)				
4	Compare and contrast various types of other mobile devices (i.e., tablets, smart phones, wearable technology devices, e-readers, GPS.)				
5	Connect and configure accessories and ports of other mobile devices.				
6	Configure basic mobile device network connectivity and application support, (e.g., wireless/cellular data network, Bluetooth, email configuration).				
7	Sync mobile devices, (e.g., devices to synchronize, types of data to synchronize, software requirements, authentication, connection types).				
G. NETWORKING		0	1	2	3
1	Compare and contrast TCP and UDP ports, protocols, and their purposes.				
2	Compare and contrast common networking hardware devices, (i.e., routers, switches, access points, cloud-based network controller, firewall, network interface card, repeater, hub, cable/DSL modem, bridge, patch panel, Power over Ethernet (PoE), Ethernet over Power).				
3	Install and configure a basic wired/wireless SOHO network.				
4	Compare and contrast wireless networking protocols.				
5	Summarize the properties and purposes of services provided by network hosts (e.g., server roles, internet appliance, and legacy/embedded systems).				
6	Explain common network configuration concepts (e.g., IP addressing, DNS, DHCP, IPv4 vs. IPv6).				

7	Compare and contrast internet connection types, network types, and their features.				
8	Use appropriate networking tools (i.e., crimper, cable stripper, multimeter, tone generator and probe, cable tester, loopback plug, punchdown tool, WiFi analyzer.)				
H. HARDWARE		0	1	2	3
1	Explain basic cable types, features, and their purposes, (e.g., network cables, video cables, peripheral cables, hard drive cables, and adapters).				
2	Identify common connector types.				
3	Install RAM types.				
4	Select, install, and configure storage devices.				
5	Install and configure motherboards, CPUs, and add-on cards.				
6	Explain the purposes and uses of various peripheral types.				
7	Summarize power supply types and features.				
8	Select and configure appropriate components for a custom PC configuration to meet customer specifications or needs.				
9	Install and configure common computing devices.				
10	Configure SOHO multi-function devices/printers and settings.				
11	Install and maintain various print technologies (i.e., Laser, Inkjet, Thermal, Impact, Virtual, and 3D).				
I. VIRTUALIZATION AND CLOUD COMPUTING		0	1	2	3
1	Compare and contrast cloud computing concepts (e.g., common cloud models, shared resources, resource pooling, measured service, cloud file storage services, cloud-based applications, and virtual desktops).				
2	Set up and configure client-side virtualization.				
J. HARDWARE AND NETWORK TROUBLESHOOTING		0	1	2	3
1	Solve problems using industry best practice methodology.				
2	Troubleshoot problems relating to computer hardware (e.g., motherboards, RAM, CPUs, power, hard drive, and RAID arrays).				
3	Troubleshoot problems relating to computing peripherals (e.g., printers, video, projector and displays.)				
4	Troubleshoot common mobile device issues while adhering appropriate procedures.				
K. OPERATING SYSTEMS		0	1	2	3
1	Compare and contrast common operating system types and their purposes.				
2	Compare and contrast Microsoft Windows versions.				
3	Summarize general OS installation considerations and upgrade methods.				

4	Use appropriate Microsoft command line tools.				
5	Use Microsoft operating system features and tools.				
6	Use Microsoft Windows Control Panel utilities.				
7	Summarize application installation and configuration concepts.				
8	Configure Microsoft Windows networking on a client/desktop.				
9	Use features and tools of the Mac OS and Linux client/desktop operating systems.				
L. SECURITY		0	1	2	3
1	Summarize the importance of physical security measures.				
2	Explain logical security concepts.				
3	Compare and contrast wireless security protocols and authentication methods.				
4	Detect, remove, and prevent malware using appropriate tools and methods.				
5	Compare and contrast social engineering threats and vulnerabilities.				
6	Compare and contrast the differences of basic Microsoft Windows OS security settings.				
7	Implement security best practices to secure a workstation.				
8	Implement methods for securing mobile devices.				
9	Implement appropriate data destruction and disposal methods.				
10	Configure security on SOHO wireless and wired networks.				
M. SOFTWARE TROUBLESHOOTING		0	1	2	3
1	Troubleshoot Microsoft Windows OS problems.				
2	Troubleshoot and resolve PC security issues.				
3	Use best practice procedures for malware removal.				
4	Troubleshoot mobile OS and application issues.				
5	Troubleshoot mobile OS and application security issues.				