

Directions:

Evaluate the student by entering the appropriate number to indicate the degree of competency.

Rating Scale (0-6):

- 0 No Exposure** – no experience/knowledge in this area; program/course did not provide instruction in this area
- 1 Unsuccessful Attempt** – unable to meet knowledge or performance criteria and/or required significant assistance
- 2 Partially Demonstrated** – met some of the knowledge or performance criteria with or without minor assistance
- 3 Knowledge Demonstrated** – met knowledge criteria without assistance at least once
- 4 Performance Demonstrated** – met performance criteria without assistance at least once
- 5 Repetitively Demonstrated** – met performance and/or knowledge criteria without assistance on multiple occasions
- 6 Mastered** – successfully applied knowledge or skills in this area to solve related problems independently

0	1	2	3	4	5	6	A. Describe and safely interact with all computer systems, including ethics, communication, hardware, software, and tools	Notes:
							1. Describe computer evolution (e.g., microcomputers and their relationship to current computing)	
							2. Compare and contrast mainframes, minicomputers, scientific workstations, and microcomputers	
							3. Compare and contrast centralized and decentralized computing	
							4. Identify information system components (e.g., software, hardware, input, process, and output)	
							5. Conduct every day procedures ethically (e.g., piracy, licensing, intellectual property, standards of conduct, privacy, organizational policies and procedures, and unauthorized access)	
							6. Communicate technical terms, solutions, and procedures to non-technical users	
							7. Explain how software and hardware supports individuals with disabilities	
							8. Create technical correspondence	
							9. Demonstrate basic word processing skills (e.g., spreadsheet, slide presentation, database and Internet)	
							Other:	

0	1	2	3	4	5	6	B. Appreciate and apply all personal and workplace safety procedures	Notes:
							1. Comply with federal and state regulations (e.g., handling, storing, and disposing of hazardous materials)	
							2. Recognize when first aid is needed for occupational injuries and follow proper procedures	
							3. Identify types, purposes, and the operation of fire extinguishers and suppression resources	
							4. Demonstrate appropriate work place safety practices, (e.g., electrical, hand tools, power tools, fall protection, eye protection, PPE and environmental hazards)	
							5. Identify hazard of RF radiation devices	

								6. Operate AC line-operated equipment safely (e.g., isolation transformers, grounding, leakage current testing, and GFI)	
								7. Practice accepted anti-static (ESD) procedures	
								8. Identify electrical, mechanical, chemical, and environmental hazards	
								Other:	

0	1	2	3	4	5	6	C. Basic Electronics	Notes:
							1. Evaluate and test source of DC and AC signals and power	
							2. Apply Ohm's law by evaluating series and parallel circuits	
							3. Measure voltage, current, and resistance using multimeters (e.g., VOM, EVM, and DVM)	
							4. Make recommendations for computer device related power sources and power supplies	
							5. Discuss digital logic circuits	
							Other:	

0	1	2	3	4	5	6	D. Hardware	Notes:
							1. Describe computer parts and functions (e.g., ports)	
							2. Assemble and configure a microcomputer from constituent parts	
							3. Compare and contrast merits of various microprocessors for various architectures	
							4. Compare and contrast current industry-standard busses	
							5. Identify industry-standard workstation and server hardware systems	
							6. Install and remove common peripherals	
							7. Verify operation of common peripherals	
							8. Install and verify device drivers	
							9. Perform burn-in/diagnostics	
							10. Troubleshoot and repair subsystems	
							11. Troubleshoot electromagnetic interference problems (EMI)	
							12. Adapt hardware for people with special needs	
							13. Compare and contrast standard memory types	
							14. Perform preventive maintenance on computer/network systems and peripherals	
							15. Identify and diagnose current printing technology problems	
							Other:	

0	1	2	3	4	5	6	E. Software	Notes:
							1. Identify, install, and configure common operating systems (e.g., Windows XP Pro, Windows Server 2003, Linux, and UNIX)	
							2. Analyze and modify system configuration files	
							3. Perform and interpret diagnostics	
							4. Support special needs access (e.g., install software and operating systems)	
							5. Utilize existing technical resources for problem resolution (e.g., news groups, online references, service manuals, and read me files)	
							6. Use file compression programs	
							7. Summarize system and network security practices (e.g., passwords, user accounts, and design and implementation of policies)	
							8. Implement asynchronous connectivity (e.g., Internet, Intranet, dial-up, SLIP, and PPP)	
							9. Install application software and suites successfully (e.g., office productivity and industry specific)	
							10. Troubleshoot software integration problems	
							Other:	

0	1	2	3	4	5	6	F. Connectivity	Notes:
							1. Discuss network wiring systems capabilities	
							2. Explain current wiring technologies (copper and fiber) according to current standards (e.g., TIA/EIA, IEEE, and ANSI)	
							3. Explain wireless technologies advantages and disadvantages	
							4. Explain network communication equipment functions (e.g., modems, DSU/CSU, bridges, switches, routers, and hubs)	
							5. Install and configure switches and routers on a network	
							6. Troubleshoot basic telecommunications problems (e.g., place device in loop-back model)	
							7. Identify the differences between standard analog and digital lines	
							8. Install basic telecommunication systems	
							9. Trace wiring and repair defects	
							10. Certify wiring infrastructure to standards	
							11. Connect asynchronous communication devices	
							12. Describe possible problems with asynchronous communication devices	
							Other:	

0	1	2	3	4	5	6	G. Networking basics, protocols, and standards	Notes:
							1. Explain telecommunications infrastructure (e.g., LATA, LEC, and CO)	
							2. Differentiate areas of responsibilities between the telecommunications provider and their clients	
							3. Explain current network standards and pseudo-standards (e.g., IEEE, RFCs, and ISO)	
							4. Draw, label, and explain networking layers (e.g., OSI)	
							5. Compare and contrast network topologies (e.g., star, bus, ring, broadband, and baseband)	
							6. Diagram and explain network topologies	
							7. Summarize and implement protocols (e.g., TCP/IP, IPX/SPX, NETBEUI, and DHCP)	
							8. Differentiate between routing and switching/bridging	
							9. Explain network security principles (e.g., IP spoofing, packet sniffing, password compromise, and encryption)	
							Other:	

0	1	2	3	4	5	6	H. Network operating systems and protocols	Notes:
							1. Specify network server internal components	
							2. Install and configure network operating systems	
							3. Install and configure network hardware (e.g., NICs)	
							4. Establish client environments and network resources	
							5. Describe procedures that are executed through login scripts	
							6. Verify client access to network resources	
							7. Provide secured access to network resources	
							8. Summarize the importance of network security (e.g., passwords and user accounts)	
							Other:	

0	1	2	3	4	5	6	I. Risk management	Notes:
							1. Perform site survey	
							2. Recommend security procedures	
							3. Verify secured access to network resources	
							4. Explain firewall usage	
							5. Recommend backup procedures	
							6. Perform backup and restore operations	

								8. Discuss and implement virus protection and removal procedures (e.g., workstations and networks)	
								9. Implement different levels of fault tolerance [e.g., transaction tracking and logging, auditing, uninterruptible power sources (UPS), mirroring, duplexing, and redundant array of inexpensive disks (RAID)]	
								Other:	

0	1	2	3	4	5	6	J. Technical support	Notes:
							1. Document cable infrastructure	
							2. Document network configurations (e.g., workstation, server, and router)	
							3. Maintain maintenance logs (e.g., document actions taken)	
							4. Specify security procedures	
							5. Analyze system log files	
							6. Explain the need for network policy documentation	
							7. Provide basic user and/or network administrator documentation	
							8. Practice constructive problem solving with customers	
							9. Explain remote access and phone support concepts	
							10. Implement customer support remote access	
							Other:	

0	1	2	3	4	5	6	K. Demonstrate leadership skills in the classroom, industry and society	Notes:
							1. Demonstrate an understanding of SkillsUSA, its structure and activities	
							2. Demonstrate an understanding of one's personal values	
							3. Perform tasks related to effective personal management skills	
							4. Demonstrate interpersonal skills	
							5. Demonstrate etiquette and courtesy	
							6. Demonstrate effectiveness in oral and written communication	
							7. Develop and maintain a code of professional ethics	
							8. Maintain an appropriate professional appearance	
							9. Perform basic tasks related to securing and terminating employment	
							10. Perform basic parliamentary procedures in a group meeting	
							Other:	

0	1	2	3	4	5	6	L. Explain and demonstrate skills in a specialization area identified by the instructor	Notes:
							1.	
							2.	
							3.	
							Other:	