



**Program of Study Scope & Sequence
with
Certification Outcomes**

Computer and Information Science

15.1202 Computer Technology / Computer Systems Technology

Task #	Task Description	Level/ Marking Pd	Career Path CIP/Soc (Computer Technology, Systems) 15.1202	Career Path CIP/Soc (Computer , Automate d Teller, and Office Machine Repairers) 49-2011.00	Career Path CIP/Soc (Comput er Systems Analysts) 15- 1211.00	Certification to test for TEST OUT PC PRO
101	Safety when using hand tools	1.1	X	X	X	X
102	Wear personal protective equipment.	1.1	X	X	X	X
103	Identify safety hazard symbols.	1.1	X	X	X	X
104	Follow Safety Data Sheets (SDS).	1.2	X	X	X	X
105	Identify and select the type of fire extinguisher based on the type of fire.	1.2	X	X	X	X
106	Follow proper procedures when lifting and carrying heavy objects.	1.2	X	X	X	X
107	Identify and implement proper disposal procedures based upon environmental impact and regulations.	1.2	X	X	X	X
108	Identify potential hazards when working with power supplies.	1.3	X	X	X	X
112	Configure a computer's power management settings to maximize energy efficiency.	1.3	X	X	X	X
114	Prevent electro-static discharge conditions.	2.2	X	X	X	X

115	Demonstrate proper ergonomic techniques.	2.2	X	X	X	X
403	Identify the components of a uniform resource locator (URL).	1.1	X	X	X	X
404	Identify processes for addressing prohibited content/activity, and privacy, licensing, and policy concepts.	1.1	X	X	X	X
405	Use web browsers to effectively search and access information on the internet.	1.1	X	X	X	X
406	Use collaboration software.	1.2	X	X	X	X
407	Identify safe and appropriate manner and the implications of the digital footprint when using social media.	1.2	X	X	X	X
501	Categorize storage devices and backup media.	1.1	X	X	X	X
502	Select motherboard components based on types, and features.	1.1	X	X	X	X
503	Select power supplies based on system requirements.	1.2	X	X	X	X
504	Define the purpose and characteristics of central processor units (CPUs) and their features.	1.2	X	X	X	X
505	Select and install cooling methods and devices.	1.2	X	X	X	X
506	Select and install memory based on type, characteristics, and their purpose.	1.3	X	X	X	X
507	Select and distinguish between different display devices and their characteristics.	1.3	X	X	X	X
508	Install and configure peripherals and input devices.	1.3	X	X	X	X

509	Summarize the function and types of adapter cards.	1.4	X	X	X	X
510	Configure and optimize portable devices, e.g., laptops, tablets, and smart devices.	1.4	X	X	X	X
511	Install, configure, and maintain the components of a desktop computer.	2.1	X	X	X	X
512	Detect problems, troubleshoot, and repair and replace the components of a desktop and laptop computer components.	2.1	X	X	X	X
513	Install, configure, and maintain printers.	2.1	X	X	X	X
514	Categorize different case form factors, their fans, and air flow directions.	2.2	X	X	X	X
515	Categorize different case form factors, their fans, and air flow directions.	2.2	X	X	X	X
516	Differentiate between and describe the characteristics of various types of printers.	2.2	X	X	X	X
517	Explain and categorize the capabilities and limitations of various portable devices.	2.3	X	X	X	X
518	Identify various computer port types and purpose.	2.3	X	X	X	X
601	Apply troubleshooting methodologies.	2.1	X	X	X	X
602	Troubleshoot and resolve common hardware and operating system symptoms and their causes.	2.1	X	X	X	X
603	Use troubleshooting methods and tools for printers.	2.2	X	X	X	X
604	Troubleshoot mobile device issues.	2.2	X	X	X	X

605	Integrate common preventative maintenance techniques for computers.	2.3	X	X	X	X
606	Identify basic computer and networking tools.	2.3	X	X	X	X
607	Choose and utilize the appropriate hand tool for a given task.	2.4	X	X	X	X
701	Evaluate different operating systems by their features.	2.3	X	X	X	X
702	Use various user interfaces.	2.3	X	X	X	X
703	Install and configure an operating system.	2.3	X	X	X	X
704	Select and use system utilities and tools and evaluate the results.	2.4	X	X	X	X
705	Select the appropriate commands and options to troubleshoot and resolve problems.	2.4	X	X	X	X
706	Differentiate between various operating system directory structures.	2.4	X	X	X	X
708	Troubleshoot common operating system (OS) and software issues.	3.1	X	X	X	X
709	Use command-line interface.	3.2	X	X	X	X
710	Install, configure, and maintain application suite and system software.	3.2	X	X	X	X
711	Configure and implement client-side virtualization.	3.3	X	X	X	X
712	Describe the interaction between software and hardware.	3.3	X	X	X	X
801	Recommend computer network type based on their scope of coverage.	3.1	X	X	X	X

802	Recommend internet technologies based on clients' requirements.	3.1	X	X	X	X
803	Identify networking fundamentals, technologies, devices, and protocols.	3.2	X	X	X	X
804	Fabricate and install test network cables, connectors, and basic network infrastructure.	3.2	X	X	X	X
805	Compare and contrast various types of wired and wireless networks.	3.3	X	X	X	X
806	Use computer tools to troubleshoot problems of network connectivity.	3.3	X	X	X	X
807	Install and configure a small office/home office (SOHO) network.	3.4	X	X	X	X
808	Install and configure network resources.	3.4	X	X	X	X
901	Follow the ethical, legal and security requirements related to handling data.	3.1	X	X	X	X
902	Implement and identify security features including wireless encryption and malicious software protection.	3.1				
903	Implement and identify security, password management, locking workstations, and biometrics.	3.2	X	X	X	X
904	Troubleshoot, remove, and prevent viruses and malware.	3.2	X	X	X	X
905	Implement security and troubleshoot common issues.	3.3	X	X	X	X
906	Address the ethical, security, and privacy issues involved in posting information about yourself and others on social networking sites,	3.3	X	X	X	X

	e.g., blogs.					
907	Implement industry standard practices dealing with user account management.	3.4	X	X	X	X
908	Perform basic forensic concepts, e.g., incident response, chain of custody, evidence preservation, and documentation.	3.4	X	X	X	X
1001	Communicate with customers.	1.1	X	X	X	X
1002	Solve customer and client problems.	1.1	X	X	X	X
1003	Utilize the team approach to deliver client service.	1.2	X	X	X	X
1004	Send, receive, and manage email documents and attachments using proper email etiquette.	1.2	X	X	X	X
1005	Describe an appropriate professional social media and remote workplace presence.	1.2	X	X	X	X
1006	Understand and create industry standard documentation, policies, procedures, and best practices.	1.3	X	X	X	X
1007	Identify appropriate computer equipment and peripheral for a specific situation and budget.	1.3	X	X	X	X