# Competency Task List – Secondary Component

# Computer Technology/Computer Systems Technology CIP 15.1202

# High School Graduation Years 2023, 2024, 2025

## 100 Personal and Environmental Safety

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| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 101 | Identify and prevent common causes of accidents and injuries in the workplace.  |   |   |
| 102 | Wear personal protective equipment.  |  |  |
| 103 | Identify safety hazard symbols. |  |  |
| 104 | Follow Safety Data Sheets (SDS). |  |  |
| 105 | Identify and select the type of fire extinguisher based on the type of fire. |  |  |
| 106 | Follow proper procedures when lifting and carrying heavy objects. |  |  |
| 107 | Identify and implement proper disposal procedures based upon environmental impact and regulations. |  |  |
| 108 | Identify potential hazards when working with power supplies. |  |  |
|  | RESERVED (109-111) |  |  |
| 112 | Configure a computer's power management settings to maximize energy efficiency. |  |  |
|  | RESERVED (113) |  |  |
| 114 | Prevent electro-static discharge conditions. |  |  |
| 115 | Demonstrate proper ergonomic techniques. |  |  |

## 200 Reserved

## 300 Reserved

## 400 Internet Applications

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| --- | --- | --- | --- |
| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
|  | RESERVED (401) |   |   |
|  | RESERVED (402) |   |   |
| 403 | Identify the components of a uniform resource locator (URL). |  |  |
| 404 | Identify processes for addressing prohibited content/activity, and privacy, licensing, and policy concepts. |  |  |
| 405 | Use web browsers to effectively search and access information on the internet. |  |  |
| 406 | Use collaboration software. |  |  |
| 407 | Identify safe and appropriate manner and the implications of the digital footprint when using social media. |  |  |

## 500 Computer Hardware

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 501 | Categorize storage devices and backup media. |   |   |
| 502 | Select motherboard components based on types, and features. |   |   |
| 503 | Select power supplies based on system requirements. |  |  |
| 504 | Define the purpose and characteristics of central processor units (CPUs) and their features. |  |  |
| 505 | Select and install cooling methods and devices. |  |  |
| 506 | Select and install memory based on type, characteristics, and their purpose. |  |  |
| 507 | Select and distinguish between different display devices and their characteristics. |  |  |
| 508 | Install and configure peripherals and input devices. |  |  |
| 509 | Summarize the function and types of adapter cards. |  |  |
| 510 | Configure and optimize portable devices, e.g., laptops, tablets, and smart devices. |  |  |
| 511 | Install, configure, and maintain the components of a desktop computer. |  |  |
| 512 | Detect problems, troubleshoot, and repair and replace the components of a desktop and laptop computer components. |  |  |
| 513 | Install, configure, and maintain printers.  |  |  |
| 514 | Calculate voltage, wattage, and capacity of power supply. |  |  |
| 515 | Categorize different case form factors, their fans, and air flow directions. |  |  |
| 516 | Differentiate between and describe the characteristics of various types of printers.  |  |  |
| 517 | Explain and categorize the capabilities and limitations of various portable devices.  |  |  |
| 518 | Identify various computer port types and purpose. |  |  |

## 600 Troubleshooting, Repair and Maintenance

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 601 | Apply troubleshooting methodologies.  |   |   |
| 602 | Troubleshoot and resolve common hardware and operating system symptoms and their causes. |   |   |
| 603 | Use troubleshooting methods and tools for printers. |   |   |
| 604 | Troubleshoot mobile device issues. |   |   |
| 605 | Integrate common preventative maintenance techniques for computers. |  |  |
| 606 | Identify basic computer and networking tools. |  |  |
| 607 | Choose and utilize the appropriate hand tool for a given task. |  |  |

## 700 Operating Systems and Software

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 701 | Evaluate different operating systems by their features. |   |   |
| 702 | Use various user interfaces. |   |   |
| 703 | Install and configure an operating system. |   |   |
| 704 | Select and use system utilities and tools and evaluate the results. |   |   |
| 705 | Select the appropriate commands and options to troubleshoot and resolve problems. |  |  |
| 706 | Differentiate between various operating system directory structures. |  |  |
|  | RESERVED (707) |  |  |
| 708 | Troubleshoot common operating system (OS) and software issues. |  |  |
| 709 | Use command-line interface. |  |  |
| 710 | Install, configure, and maintain application suite and system software. |  |  |
| 711 | Configure and implement client-side virtualization. |  |  |
| 712 | Describe the interaction between software and hardware. |  |  |

## 800 Networking

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 801 | Recommend computer network type based on their scope of coverage. |   |   |
| 802 | Recommend internet technologies based on clients’ requirements.  |   |   |
| 803 | Identify networking fundamentals, technologies, devices, and protocols. |   |   |
| 804 | Fabricate and install test network cables, connectors, and basic network infrastructure. |   |   |
| 805 | Compare and contrast various types of wired and wireless networks. |  |  |
| 806 | Use computer tools to troubleshoot problems of network connectivity. |  |  |
| 807 | Install and configure a small office/home office (SOHO) network. |  |  |
| 808 | Install and configure network resources.  |  |  |

## 900 Security

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 901 | Follow the ethical, legal and security requirements related to handling data. |   |   |
| 902 | Implement and identify security features including wireless encryption and malicious software protection.  |   |   |
| 903 | Implement and identify security, password management, locking workstations, and biometrics.  |   |   |
| 904 | Troubleshoot, remove, and prevent viruses and malware. |   |   |
| 905 | Implement security and troubleshoot common issues. |  |  |
| 906 | Address the ethical, security, and privacy issues involved in posting information about yourself and others on social networking sites, e.g., blogs. |  |  |
| 907 | Implement industry standard practices dealing with user account management. |  |  |
| 908 | Perform basic forensic concepts, e.g., incident response, chain of custody, evidence preservation, and documentation. |  |  |

## 1000 Communication and Professionalism

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 1001 | Communicate with customers. |   |   |
| 1002 | Solve customer and client problems. |   |   |
| 1003 | Utilize the team approach to deliver client service. |   |   |
| 1004 | Send, receive, and manage email documents and attachments using proper email etiquette.  |   |   |
| 1005 | Describe an appropriate professional social media and remote workplace presence. |  |  |
| 1006 | Understand and create industry standard documentation, policies, procedures, and best practices.  |  |  |
| 1007 | Identify appropriate computer equipment and peripheral for a specific situation and budget. |  |  |

1 Student Demonstrated Entry-Level Industry Proficiency as Indicated by (X)

Secondary CTE Instructor Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[PA In-Demand Occupations List (PA IDOL)](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.workstats.dli.pa.gov%2FProducts%2FIDOL%2FPages%2Fdefault.aspx&data=04%7C01%7Celw12%40psu.edu%7C465d2f58a43f45631dac08d9e0349a4c%7C7cf48d453ddb4389a9c1c115526eb52e%7C0%7C0%7C637787338795980555%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=yZW%2BaPOFwIBGxV3Jk72%2BGXlAbGWgkjCVKy%2FQtYol1F0%3D&reserved=0)

[Industry-Recognized Credential Resource Guide](https://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Resources/Teacher%20Resources/IndustryRecognized/Pages/default.aspx)