# Competency Task List – Secondary Component

# Computer Technology/Computer Systems Technology CIP 15.1202

# High School Graduation Years 2020, 2021, 2022

## 100 Personal and Environmental Safety

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 101 | Determine common causes of accidents and injuries in the workplace.  |   |   |
| 102 | Wear personal protective equipment.  |  |  |
| 103 | Identify safety hazard symbols. |  |  |
| 104 | Review Safety Data Sheets (SDS) and explain their requirements in handling hazardous materials. |  |  |
| 105 | Describe types of fire extinguishers and explain which types to use for extinguishing various fires. |  |  |
| 106 | Use safe procedures to follow when lifting and carrying heavy objects. |  |  |
| 107 | Describe the importance of safety as it relates to environmental issues. |  |  |
| 108 | Identify potential hazards when working with power supplies. |  |  |
| 109 | Follow disposal procedures for batteries display devices, and electronic components. |  |  |
| 110 | Follow disposal procedures for chemical solvents and pressurized cans. |  |  |
| 111 | Describe the meaning and importance of the Energy Star rating system. |  |  |
| 112 | Configure a computer's power management settings to maximize energy efficiency. |  |  |
| 113 | Maintain a safe work area to avoid common accidents and injuries. |  |  |
| 114 | Prevent electro-static discharge conditions. |  |  |

## 200 Information Technology (IT) Fundamentals

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 201 | Identify the various types of computers people use in the modern world. |   |   |
| 202 | Identify computer hardware components and their functions. |   |   |
| 203 | Identify appropriate computer equipment and peripheral for a specific situation and budget. |   |   |
| 204 | Describe the interaction between software and hardware. |   |   |
| 205 | Describe the difference between applications software and system software. |   |   |
| 206 | Identify the functions of an operating system. |   |   |
| 207 | Identify the various components of a graphical user interface-based operating system. |   |   |
| 208 | Use a graphical user interface-based operating system. |   |   |

## 300 Reserved

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 301 | RESERVED |   |   |
| 302 | RESERVED |   |   |
| 303 | RESERVED |   |   |
| 304 | RESERVED |   |   |
| 305 | RESERVED |  |  |
| 306 | RESERVED |  |  |
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| 308 | RESERVED |  |  |
| 309 | RESERVED |  |  |
| 310 | RESERVED |  |  |

## 400 Internet Applications

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 401 | RESERVED |   |   |
| 402 | RESERVED |   |   |
| 403 | Identify the components of a uniform resource locator (URL). |  |  |
| 404 | Describe common legal and ethical issues associated with intellectual property. |  |  |
| 405 | Use web browsers to effectively search the Internet and retrieve specified information. |  |  |
| 406 | Use collaboration software. |  |  |
| 407 | Explain the use of social media in a safe and appropriate manner. |  |  |

## 500 Computer Hardware

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 501 | Categorize storage devices and backup media. |   |   |
| 502 | Explain motherboard components, types, and features. |   |   |
| 503 | Categorize power supplies types and characteristics. |  |  |
| 504 | Explain the purpose and characteristics of central processor units (CPUs) and their features. |  |  |
| 505 | Explain cooling methods and devices. |  |  |
| 506 | Compare and contrast memory types, characteristics, and their purpose. |  |  |
| 507 | 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 | Explain the characteristics of various types of printers.  |  |  |
| 517 | Explain and categorize various portable devices.  |  |  |
| 518 | Identify various computer port types and uses. |  |  |

## 600 Troubleshooting, Repair and Maintenance

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 601 | Apply industry standard troubleshooting methods.  |   |   |
| 602 | Identify common hardware and operating system symptoms and their causes. |   |   |
| 603 | Use troubleshooting methods and tools for printers. |   |   |
| 604 | Identify common mobile device issues and determine the appropriate basic troubleshooting method. |   |   |
| 605 | Integrate common preventative maintenance techniques for computers. |  |  |
| 606 | Identify basic computer and networking tools. |  |  |

## 700 Operating Systems and Software

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 701 | Identify different operating systems by their features. |   |   |
| 702 | Use various user interfaces. |   |   |
| 703 | Install and configure an operating system. |   |   |
| 704 | Identify 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. |  |  |
| 707 | Use system utilities/tools and evaluate the results. |  |  |
| 708 | Troubleshoot common operating system (OS) and software issues. |  |  |
| 709 | Explain and demonstrate use of the command-line interface. |  |  |
| 710 | Install, configure, and maintain application suite software. |  |  |
| 711 | Configure and implement client-side virtualization. |  |  |

## 800 Networking

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| Item | Task  | (X) Indicates Proficiency 1 | Secondary Course Crosswalk |
| 801 | Recommend computer networks based on their scope of coverage. |   |   |
| 802 | Compare and contrast different Internet technologies.  |   |   |
| 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 the appropriate 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 issues related to handling data. |   |   |
| 902 | Identify security features including wireless encryption and malicious software protection.  |   |   |
| 903 | Identify security, password management, locking workstations, and biometrics.  |   |   |
| 904 | Troubleshoot, remove, and prevent viruses and malware. |   |   |
| 905 | Implement security and troubleshoot common issues. |  |  |
| 906 | Describe 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 presence. |  |  |
| 1006 | Describe industry standard documentation, policies, procedures, and best practices.  |  |  |

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

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

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