# Work-Based Learning Experience in Programming & Software Development Course No. 10198 Credit: 1.0

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| --- | --- | --- | --- |
| **Student name:** |  | **Graduation Date:** |  |

Pathways and CIP Codes:Programming & Software Development (11.0201)

Course Description: **Application Level:** a capstone course intended to provide students with opportunities to apply the skills and knowledge learned in previous CTE and general education courses within a professional work environment. The course allows students to earn high school credit for select models of work-based learning, which allow students to interact with industry professionals in order to extend and deepen classroom work and support the development of postsecondary and career readiness knowledge and skills.

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Employability Skills

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Understand and demonstrate all appropriate work-based personal and professional expectations, including but not limited to: a. Demonstrate information literacy b. Use technology effectively and appropriately c. Communicate clearly and effectively, verbally and in writing d. Demonstrate critical thinking and problem solving e. Collaborate and work productively as a team member f. Demonstrate creativity and innovation g. Demonstrate initiative and self-direction h. Demonstrate professionalism and ethical behavior i. Demonstrate appropriate interpersonal and social skills j. Demonstrate adaptability and flexibility k. Demonstrate productivity and accountability. |  |
| 1.2 | Understand and demonstrate adherence to appropriate professional safety standards. |  |
| 1.3 | Plan and navigate education and career paths aligned with personal goals. |  |
| 1.4 | Develop and implement a personalized learning plan (e.g. within the IPS) and reflect on experiences with an electronic, exportable portfolio. |  |

## Benchmark 2: Advanced study of Information Support & Services, in cooperation with their work-based learning site, toward CompTIA Server+ certification.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Install, configure, and manage server hardware and server operating systems |  |
| 2.2 | Implement proper server hardening and security controls |  |
| 2.3 | Successfully troubleshoot common server problems |  |
| 2.4 | Demonstrate an understanding of key disaster recovery, high availability, and backup concepts |  |

## Benchmark 3: Advanced study of Information Support & Services, in cooperation with their work-based learning site, toward CompTIA A+ certification.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Configure, install and upgrade operating systems, including: Windows, Apple OS X, Linux, iOS, Android and Windows Mobile. |  |
| 3.2 | Install and image virtual machines. |  |
| 3.3 | Set up and troubleshoot peripheral devices. |  |
| 3.4 | Assemble and disassemble computing hardware. |  |
| 3.5 | Set up and support basic home and small office networks. |  |
| 3.6 | Implement cybersecurity controls appropriate to helpdesk and technical support roles. |  |
| 3.7 | Troubleshoot and support end-user access to applications and data. |  |

## Benchmark 4: Advanced study of Information Support & Services, in cooperation with their work-based learning site, toward CompTIA Security+ certification.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Assess the security posture of an enterprise environment and recommend and implement appropriate security solutions. |  |
| 4.2 | Monitor and secure hybrid environments, including cloud, mobile, and IoT. |  |
| 4.3 | Operate with an awareness of applicable laws and policies, including principles of governance, risk, and compliance. |  |
| 4.4 | Identify, analyze, and respond to security events and incidents |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

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