

# Career Technology Education: Machine Operation

**COMPONENT #: 2-209-304**

**POINTS TO BE EARNED: 120 MPP**

## **PART I – PLANNING**

**DESCRIPTION:** Write a brief description of content and intent of component.

This component is designed to enable the participant to develop or update technical knowledge and operational skills of Career Tech. Ed. tools, machinery and/or equipment.

Upon successful completion of this professional development activity, participants will be able to demonstrate skill level and incorporate into instruction the principles presented in this workshop.

**STANDARDS/FOCUS AREAS ADDRESSED BY COMPONENT:** Identify the standards, national/state/district imperatives, initiatives or key focus areas this component supports.

**Standards for Professional Learning** (choose one)

- |   |  |
|---|--|
| <input type="checkbox"/> Learning Communities | <input type="checkbox"/> Learning Designs          |
| <input type="checkbox"/> Leadership           | <input checked="" type="checkbox"/> Implementation |
| <input type="checkbox"/> Resources            | <input type="checkbox"/> Outcomes                  |
| <input type="checkbox"/> Data                 |  |

**Florida Educator Accomplished Practices** (check all that apply)

- |   |   |
|---|---|
| <input type="checkbox"/> Instructional Design and Lesson Planning | <input type="checkbox"/> Assessment   |
| <input checked="" type="checkbox"/> The Learning Environment      | <input type="checkbox"/> Continuous Professional Improvement                        |
| <input type="checkbox"/> Instructional Delivery and Facilitation  | <input checked="" type="checkbox"/> Professional Responsibility and Ethical Conduct |

**Florida Leadership Standards** (check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Student Learning Results          | <input type="checkbox"/> Decision Making                    |
| <input type="checkbox"/> Student Learning as a Priority    | <input type="checkbox"/> Leadership Development             |
| <input type="checkbox"/> Instructional Plan Implementation | <input type="checkbox"/> School Management                  |
| <input checked="" type="checkbox"/> Faculty Development    | <input type="checkbox"/> Communication                      |
| <input type="checkbox"/> Learning Environment              | <input type="checkbox"/> Professional and Ethical Behaviors |

**IPEGS Standards** (check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> PS 2 – Knowledge of Learners                            | <input type="checkbox"/> PS 6 – Communication                   |
| <input checked="" type="checkbox"/> PS 3 – Instructional Planning                | <input checked="" type="checkbox"/> PS 7 – Professionalism      |
| <input checked="" type="checkbox"/> PS 4 – Instructional Delivery and Engagement | <input checked="" type="checkbox"/> PS 8 – Learning Environment |
| <input type="checkbox"/> PS 5 – Assessment                                       |   |

**IMPACT FOCUS AREA(S):** select the intended impact focus area(s) from the choices below. Note that Impact Evaluation procedures should reflect this level of impact.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Educator knowledge/skill (content) | <input checked="" type="checkbox"/> Student learning       |
| <input type="checkbox"/> Educator (professional growth)                | <input type="checkbox"/> Organizational support and change |

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**SPECIFIC LEARNER OUTCOMES:** Identify the intended learner outcomes (number and content of learner outcomes should be reflective of the total points participants will earn as a result of completing this learning).

1. Identify the applications and operation of industrial machinery related to Career Technical Education careers.
2. Be able to demonstrate and operate the industrial tools, equipment and/or machinery with proficiency in the appropriate industrial application.
3. Identify the Career Technical Education state approved curriculum standards that correlate with specific instructional objectives related to the specific operational skill.
4. Identify the Standards for Technological Literacy that correlate with the implementation of the industrial operational skill in a specific job assignment in related careers.
5. Identify the academic NGSSS and Florida Career Readiness standards that correlate with the implementation of the industrial operational skill in related careers.
6. Develop hands-on instructional activities integrating technology into the curriculum and instructional delivery system.
7. Use interim and formative assessments to monitor student progress and to guide instruction.
8. Modify assessment tools to accommodate learning styles and varying levels of software skill knowledge.
9. Share student assessment data with students and parents to assist student achievement of subject content skills of job-specific software.
10. Apply technology to organize and integrate assessment interim and final data.
11. Guide students to achieve industry certification of software applications skills in various fields, and for post-secondary career preparation.

### PART II – LEARNING

**LEARNING PROCEDURES:** Describe the experiences (the “what”) and formats/methods (the “how”) that will be used to provide participants with the knowledge and skills sufficient to master the intended learner outcome of this component.

1. Participants will have a variety of experiences that will include, but are not limited to, a blended format to include:
  - o Presentation of current research
  - o Demonstration of best practices
  - o Web based resources
  - o Live online course sessions
  - o Hands-on applied learning activities
  - o Case studies
  - o Collaborative learning activities
2. Participate actively in presentations, discussions and activities on innovative strategies/techniques, technology integration and/or materials for specific instructional objectives (SLO 1-10).
3. Discuss how the innovative strategies, techniques, technology integration, and/or materials can be used to support specific instructional objectives. (SLO 1 - 10)
4. Implement specific instructional strategies and activities that will address the needs of diverse learners (SLO 2, 4, & 8).
5. Practice operating machinery or equipment in a “hands-on” workshop (SLO 2, 7 & 8).

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6. Monitor and adjust instruction of Technology Education programs, as needed, as a result of the implementation feedback and findings.

### PART III – IMPLEMENTATION

**IMPLEMENTATION PROCEDURES:** Method(s) and resource(s) that will be provided to support implementation of new learning for participants (check all that apply).

- Apply newly acquired professional knowledge, skills, dispositions, and behaviors to improve practice.
- Provide sufficient classroom- and school-focused support and assistance by skillful coaches, mentors, or others to the educator to ensure high-fidelity implementation of professional learning.
- Provide educators with web-based resources and assistance to support implementation of professional learning.

### PART IV – EVALUATION

**IMPACT EVALUATION PROCEDURES:** Describe the processes that will be used to determine the impact (as identified in previous section titled “Impact Focus Areas”). Description should reflect methods for determining at least ONE of those areas, and will include a specific section for each impact focus area identified for this component.

1. Educator Knowledge/skill: Will consist of observation of participants using the identified skills, techniques, methods, specified in the component objectives during the learning events.
2. Student Learning: Evidence will include evidence of implementation through documented impact on student achievement.

**COMPONENT EVALUATION PROCEDURES:** Describe the process(es) that will be used to determine the effectiveness of this component to include design, implementation and impact (check all that apply).

- Evaluate the impact of all professional learning on educator’s practice through reflection, assessment, collaborative protocols for examining educator practice and work samples, peer visits, and/or professional portfolios.
- Determine the degree to which educator’s professional learning contributed to student performance gains as measured by classroom assessment data.
- Use summative and formative data from state or national standardized student achievement measures, when available, or other measures of student learning and behavior such as district achievement tests, progress monitoring, educator-constructed tests, action research results, discipline referrals, and/or portfolios of student work to assess the impact of professional learning.

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**Department: Career & Technical Education**

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