

# WELDING TECHNICIAN- CAREER PATHWAY CERTIFICATE OF COMPLETION (CPCC)

## Description

The Welding Career Pathway Certificate of completion is designed to recognize students' accomplishments in welding and prepare them for entry-level work in the welding industry. Students will have the skills necessary to be valuable employees in the industrial welding trades.

Certificate credits are transferable to the Welding One-Year Certificate of Completion.

## Program Learning Outcomes

Upon successful completion of the program, students will be able to:

1. Model industry safety standards in a welding/fabrication environment.
2. Summarize test standards and information in order to pass the American Welding Society Entry Welder practical knowledge qualification written test.
3. Perform the specific skills needed to pass American Welding Society Entry Welder performance qualification tests.
4. Apply inspection, testing, and acceptance criteria at the American Welding Society Entry Welder level.

## Entrance Requirements

### Academic Entrance Requirements

Recommended:

- High school diploma or GED
- Completion of MTH 060 Beginning Algebra or minimum placement Math Level 10
- Successful completion of or current enrollment in MFG 100 MFG Orientation
- College-level computer skills

## Additional Program Costs (Beyond Standard Tuition/Fees and Textbooks)

### Material Costs

Required:

- Welding personal protective equipment and tools: approximately \$250

### Enrollment Fees

- Fees on specific MFG courses: approximately \$600

## Course Requirements

| Course              | Title                  | Credits |
|---------------------|------------------------|---------|
| <b>Core Courses</b> |                        |         |
| MFG 100             | MFG Orientation        | 1       |
| MFG 105             | Welding Technology II  | 4       |
| MFG 107             | Welding Technology III | 4       |
| MFG 264             | Automated Cutting      | 3       |

|                      |                                |           |
|----------------------|--------------------------------|-----------|
| MFG 267              | Oxygen-Fuel and Plasma Cutting | 3         |
| MFG 271              | SMAW I                         | 3         |
| MFG 272              | GMAW I                         | 3         |
| MFG 281              | GTAW I                         | 3         |
| MFG 282              | FCAW I                         | 3         |
| <b>Total Credits</b> |                                | <b>27</b> |

## Advising Notes

Nearly all MFG courses are self-directed, outcome-based curricula. This provides students with a greater degree of flexibility than other programs.

Upon starting their program, students review their desired degree outcome with their advisor, and a coursework sequence is identified. This is particularly important if developmental work is needed.

The program is designed for students planning to enter the manufacturing workforce upon graduation. Often only selected credits are considered transferable to public or private baccalaureate institutions. Before starting any manufacturing technology program, students are advised to contact the institution to which they intend to transfer and identify what credits may be transferable.

Most of the skills development courses in this program require two hours a week in the welding lab for each credit. This usually means students will need to schedule 24 hours or more each week in the lab. The welding lab is staffed Monday through Thursday from 9 am to 8 pm (40 hours a week).

## Performance Standards

- Academic Requirements:
  - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
  - All courses in the program must be completed with a grade of C or higher.

## Sample Plan

| First Year           |                                | Credits   |
|----------------------|--------------------------------|-----------|
| First Term           |                                |           |
| MFG 100              | MFG Orientation                | 1         |
| MFG 105              | Welding Technology II          | 4         |
| MFG 107              | Welding Technology III         | 4         |
| MFG 264              | Automated Cutting              | 3         |
| MFG 267              | Oxygen-Fuel and Plasma Cutting | 3         |
| <b>Credits</b>       |                                | <b>15</b> |
| Second Term          |                                |           |
| MFG 271              | SMAW I                         | 3         |
| MFG 272              | GMAW I                         | 3         |
| MFG 281              | GTAW I                         | 3         |
| MFG 282              | FCAW I                         | 3         |
| <b>Credits</b>       |                                | <b>12</b> |
| <b>Total Credits</b> |                                | <b>27</b> |