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

## Description

The Manufacturing Technician Career Pathway Certificate of Completion gives students entry-level manufacturing skills by means of basic blueprint reading, basic use of lathe, mill, drill press, bandsaw, and an orientation on solid modeling computer-aided design and computer-aided engineering. It also introduces stick welding to help students decide on a path to welding or machining.

Many of this certificate's credits can be applied to the Manufacturing CNC Machine Operator One-Year Certificate of Completion, Welding One-Year Certificate of Completion, Welding Associate of Applied Science, and Manufacturing Machining Technician Associate of Applied Science.

## **Program Learning Outcomes**

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

- 1. Demonstrate the ability to safely perform routine workplace tasks in a manufacturing/fabrication environment.
- 2. Demonstrate introductory level skills with the standard tools found in a manufacturing/fabrication environment. (blueprint reading, engine lathe, vertical mill, SMAW, GMAW, CAD/3D modeling)

### **Entrance Requirements**

#### **Academic Entrance Requirements**

Recommended:

- High school diploma or GED
- Completion of MTH 060 Beginning Algebra or minimum placement Math Level 10
- College-level computer skills

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

#### **Material Costs**

• Personal protective equipment and tools: approximately \$250

#### **Enrollment Fees**

• Fees on specific MFG courses: approximately \$130

## **Course Requirements**

Course	Title	Credits
Core Courses		
MFG 100	Manufacturing Technology Orientation	1
MFG 101	Blueprint Reading	3
MFG 103	Welding Technology I	4
MFG 110	Manufacturing Processes I	4
MFG 119	Manufacturing Design and Drafting Techniques	4
or MFG 119M	Mechanical Drawing Techniques	
Total Credits		16

### **Advising Notes**

Manufacturing Technology courses are structured to enable students to meet benchmarks through the completion of labs and hands-on projects.

Upon starting their program, students review their desired certificate or degree outcome with their advisor. Students should continue to meet with their advisors on a continuous basis to ensure they remain on track for degree completion.

This certificate is designed for students to directly enter the manufacturing workforce. Transferability of course credits to other public, or private, institutions' degree programs is dependent on those institutions' policies.

## **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

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First Term		Credits
MFG 100	Manufacturing Technology Orientation	1
MFG 101	Blueprint Reading	3
MFG 103	Welding Technology I	4
MFG 110	Manufacturing Processes I	4
MFG 119 or MFG 119M	Manufacturing Design and Drafting Techniques or Mechanical Drawing Techniques	4
	Credits	16
	Total Credita	16
	Total Greats	10