INTEGRATED METALS: MACHINIST ASSISTANT - CERTIFICATE

Limited Entry Career Pathway Certificate of Completion | mhcc.edu/IntegratedMetals (http://mhcc.edu/IntegratedMetals/)

Faculty Advisers

Zach Canjar: 503-491-7237 | Room IT42 | Zach.Canjar@mhcc.edu
Keith Knight: 503-491-7207 | Room IT49 | MKeith.Knight@mhcc.edu
Mark Thomas: 503-491-7569 | Room IT43 | Mark.Thomas@mhcc.edu

This course of instruction includes training in industrial safety, basic blueprint reading and precision measuring, manual lathe, milling machine and drill press operations, as well as introductory CNC setup and operation of CNC lathes and mills. Students are prepared for entry-level machining and CNC operator positions.
Interested students may include recent high school graduates, students transitioning from the college's GED and ESL programs, dislocated workers referred from WorkSource, and employed workers seeking to upgrade their skills and increase their knowledge and abilities.

Students are required to maintain a minimum grade of "C" in all IMTL courses. All core courses must be completed within 5 years in order for the certificate to be awarded.

Program Outcomes

At the completion of this program, students should be able to:

- Demonstrate and/or describe safe work habits and environmental issues associated with modern manufacturing settings
- Read, interpret and apply blueprints for the production and inspection of manufactured workpieces
- Demonstrate correct application and use of precision measuring equipment commonly found in a manufacturing setting
- Plan and produce work pieces on a manual drill press using basic industry methods
- Plan and produce work pieces on a manual engine lathe using basic industry methods
- Plan and produce work pieces on a manual milling machine using basic industry methods
- Demonstrate correct application of basic introductory CNC milling machine G&M code
- Demonstrate correct application of setting tools and work coordinates in CNC machine tools

Code	Title	Credits
IMTL110	Machine Shop I Theory	3
IMTL111	Machine Shop I Lab	3
IMTL114	Blueprint Reading for the Metals Industry	3
IMTL116	Introduction to Precision Measuring	3
IMTL118	Machine Shop Math Applications	2
IMTL130	Machine Shop II Theory	3
IMTL131	Machine Shop II Lab	3
IMTL136	Introduction to CNC (Computer Numerical Control) Machining	3
IMTL153	CNC (Computer Numerical Control) Machining	4
Total Credits		**27**