

INTEGRATED METALS: MACHINIST - CERTIFICATE

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

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This program prepares students for jobs as machinists and CNC operators. Students will learn to set up and run CNC lathes, milling machines, and other trade equipment.

All courses must be completed with a "C" grade or higher, and must be completed within 5 years in order to be awarded the certificate.

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 work pieces
- Demonstrate the correct application and use of precision measuring equipment commonly found in a manufacturing setting
- Plan and produce work pieces on a manual drill press, manual engine late, and manual milling machine to required blueprint specifications using common industry methods
- Demonstrate, explain and/or apply CNC program code and machine tools and software to produce work pieces to required blueprint specifications

Minimal computer literacy required. Students without computer experience or who want to brush up on computer skills before beginning this program are encouraged to enroll in BCS090 (<https://catalog.mhcc.edu/search/?P=BCS090>) Computer Basics for College Success, a **free** course offered through the Learning Success Center.

First Quarter

Fall		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
Credits		14

Second Quarter

Winter		
IMTL130	Machine Shop II Theory	3
IMTL131	Machine Shop II Lab	3
IMTL134	Metallurgy Theory	3
IMTL135	Metallurgy Lab	1

IMTL136	Introduction to CNC (Computer Numerical Control) Machining	3
Credits		13
Third Quarter		
Spring		
IMTL150	Machine Shop III Theory	3
IMTL151	Machine Shop III Lab	3
IMTL153	CNC (Computer Numerical Control) Machining	4
IMTL155	Industrial Safety	3
Credits		13
Total Credits		40

How to Apply

The machinist certificate program is a limited-entry program. This means you must meet certain criteria before you can apply (<https://mhcc.edu/education-options/degrees-certificates/integrated-metals/machinist/get-started/>). The program admits 36 students every fall term. Students of all races, ethnicities, ages, genders, religions, sexual orientations, socio-economic statuses, nationalities, physical abilities, and cognitive differences are welcome!