INDUSTRIAL MANUFACTURING: CNC MACHINIST, CERTIFICATE (644)

About Our Program

CNC Machinist certificate graduates enter industry with a basic skill set that will enable them to go beyond operating machine tools and basic CNC machining.

They will have the ability to set up and tool machines as well as troubleshoot programming issues. Students also gain knowledge of basic machining and manufacturing processes.

This certificate includes an internship where students develop skills while applying knowledge gained through the program.

Nature of Work and Employment

Graduates will be fluent in CNC machine setup and will be prepared for employment in manufacturing facilities utilizing CNC machining or CAD-related work.

Requirements

First Semester		Hours
DRAF 105	Computer Aided Drafting I	3
DRAF 110	Print Reading and Inspection	2
MTEC 151	Introduction to CNC Machining [1]	3
MTEC 270	CNC Mill I [1]	3
	Hours	**11**
Second Semester		
DRAF 260	CAD-3D Solid Modeling [1]	4
MTEC 164	Manufacturing Processes	3
MTEC 280	CNC Lathe I [1]	3
Select one of the following:		3
MATH 111	Technical Math [1]	
higher level math course [1]		
	Hours	**13**
Summer		
OCED 290	Workplace Experience [1]	2
	Hours	**2**
Third Semester		
MTEC 285	Advanced CNC Machining [1]	3
OCED 290	Workplace Experience [1]	2
WELD 130	Introduction to Welding	3
Select one of the following:		3
BUSN 141	Business Communications [1]	
ENGL 121	Rhetoric and Composition I [1]	
COMM 101	Technical Communications [1]	
	Hours	**11**
	Total Hours	**37**

[1] Course has a prerequisite. See course description.

Program Outcomes

- Interpret and utilize technical drawings as they apply to both manufacturing and quality control.
- Identify the processes required to manufacture a component.
- Use calipers, micrometers, and other basic inspection gauges to measure, inspect, and document features on a manufactured component.
- Apply industry related mathematics.
- Operate and troubleshoot CNC lathes and mills.
- Set-up and program CNC lathes and mills utilizing both G-code programming and CAM software.
- Create technical drawings with proper views, dimensions, tolerances and specifications.

Program Contacts

Call Highland at 815-235-6121 for the following program contacts:

- Dr. Matt Magee, Dean of Agriculture, Business & Technology
- Aaron Sargent, Industrial Technology Faculty
- Vicki Schulz, Student Advisor/Transfer Coordinator

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