Machining CNC Programming

Engineering Technologies Division

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NSCC is accredited by:
The Higher Learning Commission
(312) 263-0456
www.ncahigherlearningcommission.org

Machining CNC Programming

Associate of Applied Science in Industrial Technology

This program has a diversified audience. It is naturally intended for related trades students who have completed a four-year apprenticeship program leading to a journeyman's card. It provides the opportunity to count apprentice coursework toward an associate degree in industrial technology.

The degree/certificate program can be used by anyone as a springboard into a career as a journeyman by using the certificate as leverage into a company that has an apprenticeship/training program, since it contains more than the contact hours required for related classroom hours in an apprenticeship program.

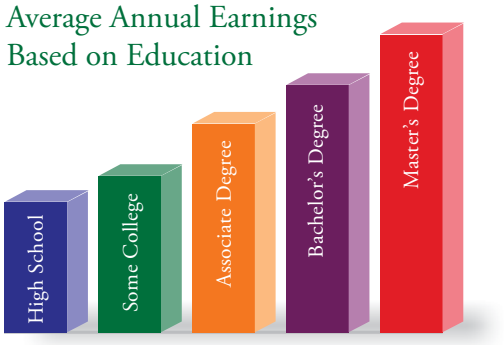
The machining CNC programmer creates machine parts. This person has a broad knowledge of tooling and its uses. Not only does he/she use manual and CNC mills, drills and lathes, but may also be trained in the use of non-traditional machining techniques, such as electrical discharge machining.

Career Outlook

Based on a highly technological global market, the demand for machinists has fallen prey to a need to modernize the machinist vocation. Implementing up-to-date technology involving computer-numerical-controls has become the only salvation for the trade. Contact with several regional machine shops has indicated a strong desire to bring jobs back which had already made their way to other countries.

Education Pays

Average Annual Earnings
Based on Education



Based on data from the Bureau of Labor Statistics

Program Sequence

First Semester		*Credits*
ENG111	Composition I	3
IND110*	Industrial Computing I	3
+ MET110	Print Reading & Sketching	3
+ IND140	Principles of Machining	3
+ IND132	Benchwork	2
MTH109	College Algebra	3
		17

Second Semester		*Credits*
ENG112	Composition II	3
+ IND241	Tooling & Fixtures	3
IND103	Applied Geometry & Trigonometry	3
+ IND240	Machining Processes II	3
+ MET222	Programming CNC	3
	Communications Elective	3
		18

Third Semester		*Credits*
+ IND133	Applied Welding Techniques	3
+ IND134	Industrial Fluid Power I	3
+ MET223	CAM I	4
CAD100	CAD for Machining	3
+ QCT141	Precision Measurement	3
	Humanities Elective	3
		19

Fourth Semester		*Credits*
+ MET226	Jig Fixture & Mold Design	3
+ IND141	Metallurgy and Heat Treatment	2
+ IND105	Industrial Safety	2
	Science Elective	4
	Social/Behavioral Science Elective	3
	Technical Elective	3
		17

Total Program Credit Hours ***71***

* Prior to taking IND110, students should have basic computer literacy in Windows and at least one Windows application.

\+ Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.

Course curriculum is subject to change. Please consult with an Academic Advisor for up-to-date information.