

Machining Certificate

Engineering Technologies Division

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NSCC is accredited by:
The Higher Learning Commission
(312) 263-0456

www.ncahigherlearningcommission.org



Machining Certificate

The machining certificate is designed to meet the needs of a diverse vocational audience. Whether your interest is in computer numerical control programming, tool and die maker or pattern maker, this program is designed to prepare the learner for a number of advantages as a skilled tradesman.

CNC or computer numerical control machining has literally replaced the Machinist trade. You will be trained in the proper use of mills, drills and lathes, the latest in programming software as well as set-up and operational procedures of CNC equipment to produce a precision part.

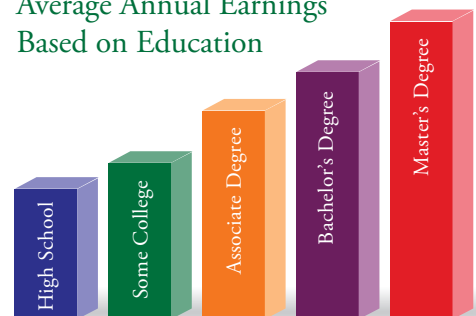
As a pattern maker trainee you will learn the most up-to-date technology needed to build a pattern. To obtain this skill level the learner will become knowledgeable of the properties of metals, precision measurement and the fundamentals of repairing molds and dies.

The tool and die maker will learn how to create tools, dies and fixtures. This individual will gain a broad understanding of tooling by learning how to properly use mills, drills, lathes and other machining related equipment including non-traditional machining techniques such as the electrical discharge machine.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Machining CNC Programming.

Education Pays

Average Annual Earnings
Based on Education



2011-2012

Based on data from the Bureau of Labor Statistics

Program Sequence

First Semester *Credits*

+ MET110	Print Reading & Sketching	3
MTH080	Review of Beginning Algebra	4
		7

Second Semester *Credits*

IND103	Applied Geometry & Trigonometry	3
+ IND110*	Industrial Computing I	3
		6

Third Semester *Credits*

+ IND133	Applied Welding Techniques	3
+ IND132	Benchwork	2
	General Studies Elective	3
		8

Fourth Semester *Credits*

+ IND140	Principles of Machining	3
+ QCT141	Precision Measurement	3
		6

Fifth Semester *Credits*

+ IND240	Machining Processes II	3
+ IND241	Tooling & Fixtures	3
		6

Sixth Semester *Credits*

+ MET222	Programming Computer Numerical Control	3
+ IND141	Metallurgy & Heat Treatment	2
		5

Total Program Credit Hours* **38*

* 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.



Machining Certificate

Department of Engineering Technology

PROGRAM NAME & LENGTH

Name of Program: Machining

Level of Program: Certificate

Program Length: 3 Semesters

RELATED OCCUPATIONS

U.S. Department of Labor's Standard Occupational Classification (SOC) code:

51-4041 Machinists

Link(s) to the U.S. Department of Labor's O*Net Occupational Profiles:

<http://www.onetonline.org/link/summary/51-4041.00>

COST:

Total Tuition: \$4,624

Fees: \$415

Total Est. Costs for Books and Supplies: \$497

DEBT AT PROGRAM COMPLETION

Number of students completing the program between July 1, 2010 and June 30, 2011

Number of 2010-2011 Graduates: 2 Students

For all Students completing program, the median cumulative debt for:

Federal Student Debt: Not Disclosed

PROGRAM COMPLETION IN NORMAL TIME

Normal Time in Months to Complete Program: 12 Months