

# Machining CNC Programming Technology

## Engineering Technology

### Machining CNC Programming



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 them 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.

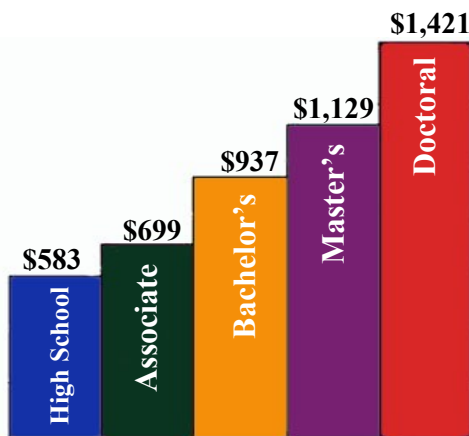
The Machining CNC Programmer creates machine parts. This person has a broad knowledge of tooling and its uses. Not only does he/she use mills, drills, and lathes, but may also be trained in the use of non-traditional machining techniques, such as Electrical Discharge Machining.

### Career Options

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 Weekly Earnings Based on Educational Attainment



Based on data from the Bureau of Labor Statistics



## Program Sequence

2011-2013

### First Semester

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	<u>3</u>
		17

### Second Semester

ENG112	Composition II	3
+ IND241	Tooling & Fixtures	3
IND103	Applied Geometry & Trigonometry	3
+ IND240	Machining Processes II	3
+ MET222	Programming CNC	3
	Communications Elective	<u>3</u>
		18

### Third Semester

+ 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	<u>3</u>
		19

### Fourth Semester

+ MET226	Jig, Fixture & Mold Design	3
+ IND141	Metallurgy and Heat Treatment	2
+ IND105	Industrial Safety	2
	Science Elective	4
	Social/Behavioral Science Elective	3
+ <u>3</u>	Technical Elective	<u>3</u>
		17

\*\* Prior to taking IET105, 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

## Contact Information

**For Program Information, Contact:**

Dan Burklo, Dean  
Engineering Technologies  
(419) 267-1273  
dburklo@northweststate.edu

**For Admissions Information, Contact:**

Admissions Office  
(419) 267-1320

# Northwest State Community College

## Dave VonDeylen, Class of 1981

Future Northwest State Students:

I, like many others, attended Northwest State because tuition was affordable and the campus was close to home. While attending Northwest State, my instructors were extremely helpful. They guided me to enroll in courses that appealed to my interests and talents, and really went the extra mile to ensure my success in their programs.

My advisors also were able to help me gain employment through a Co-op program that gave me a chance to get hands-on training outside of the classroom and begin networking with other professionals in the area. Now, many years later, I know the experience I gained and the local contacts I made helped me build my own company, Alex Products, Inc.

Alex Products began in a small, one room shop and, in 22 years, has grown into a large plant with four locations in the five-county area. Not only are we well known for our quality of service, we are also recognized for offering the highest level of career preparation for our employees. As a matter of fact, out of our 1,000 employees, more than 20% have received some level of training from Northwest State Community College.

Whether you decide to major in Engineering, Business, Nursing or any other degree at Northwest State Community College, you are building a foundation to a successful future. Not only will the education you earn at Northwest State prepare you for the workforce, it will give you the confidence to fill a professional role right out of college. The confidence that employers, like me, look for in their employees.

Best of luck in your education as well as your career.

Dave VonDeylen

## Numbers to Call

**Admissions:** (419) 267-1320

**Financial Aid:** (419) 267-1333

**Main Campus:** (419) 267-5511

**Or Visit Our Web Site at**

[www.northweststate.edu](http://www.northweststate.edu)



The Plastic Engineering Technology program at Northwest State Community College is an incredible program to be involved in. There are great opportunities for jobs in the plastic engineering field after graduation. It is a key component in trying to get your foot in the door at a plastics company.

Another option that the Plastic Engineering Degree offers is transferring to a four year school. I had the opportunity to transfer to Ferris State University to earn a bachelor's degree in plastic engineering. The knowledge I gained at Northwest State made it a very easy transition. If you are interested in a position in plastics, or want to continue your education, Northwest State is a great choice.

- Brian Brown, Class of 2006



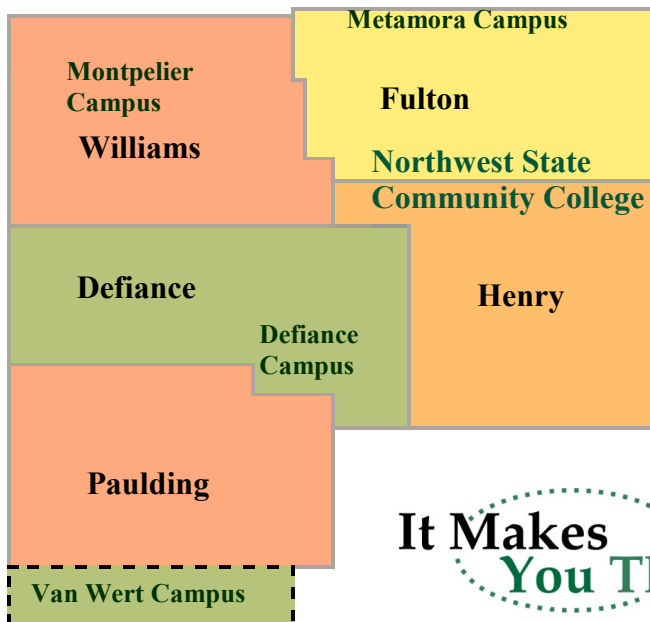
I graduated from Northwest State with an engineering technology degree and the confidence that I was well-prepared to enter the job field. It was that confidence that helped me earn a position at Campbell Soup working as a technology trouble shooter.

Today, I am making more money than I ever could have without a college degree. Northwest State Community College transformed my life.

- Mike Kappen, Class of 2003



## Northwest State Service Area



It Makes  
You Think!