

Computer Numerical Control (CNC) Technician

Certificate of Completion

2009-10 Academic Year

Major Code: 150613B

About the Program

This one-year certificate integrates conventional manufacturing techniques with computer numerical control (CNC) manufacturing skills. Computer aided drafting (CAD) is used as a basic tool in the manufacturing engineering process. In addition to technical training, students receive a solid education in mathematics, along with human relations and computer skills courses. Graduates typically enter the workforce as computer numerical control (CNC) technicians or computer aided design drafters. With additional on-the-job experience, this training facilitates movement into fields such as quality control inspector and CNC programmer. This certificate completes the first-year requirements for Rogue's Manufacturing and Engineering Technology AAS degree program.

Entry Requirements

Students are required to take a placement test to determine skill level and readiness in math, reading, and writing. Students must also complete any prerequisites. As part of their training program, students must begin with courses within their skill levels as determined by placement test scores. In addition, students may also be required to enroll in classes that would increase their employability and success.

Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies and the Manufacturing and Engineering Technology program coordinator's recommendation. In order to ensure that coursework is current, program courses over four years old must be reviewed and approved by the appropriate program coordinator before being accepted toward core requirements. Official transcripts must be filed with the Enrollment Services Office and the Manufacturing/Engineering Technology Department.

Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their certificates. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned a "C" or better grade.

Prerequisites

Course No.	Course Title	Credits
—	Approved 3-4 credit computer science class, CS120 or above (or documented computer proficiency) ¹	0-4
MTH20	Pre-algebra (or designated placement test score as shown on current indicator chart)	4
RD30	College Reading II (or designated placement test score as shown on current indicator chart)	4
WR30	Fundamentals of Composition II (or designated placement test score as shown on current indicator chart)	4

Required Courses

Course No.	Course Title	Credits
First Term		
MET101	Mechanical Drafting	3
MET105	Mechanical Blueprint Reading	1
MFG101	Introduction to Manufacturing	3
MFG116	Metrology	2
MFG121	Manufacturing Processes I	4
MTH60	Fundamentals of Algebra I or	
MTH63	Applied Technical Math or higher level math	4
		17

Course No.	Course Title	Credits
Second Term		
MET104	Applied Shop Practices or	
MTH112	Elementary Functions	3-4
MET121	CAD I: Mechanical (SolidWorks)	3
MET160	Materials and Metallurgy	3
MFG122	Manufacturing Processes II	4
MFG140	CNC Controls	2
WR115	Introduction to Expository Writing or higher level composition	3
		18-19
Third Term		
MET122	CAD II: Mechanical (SolidWorks)	3
MFG114	Geometric Dimensioning and Tolerancing	2
MFG123	Manufacturing Processes III	4
MFG241	CNC Programming - Mill	4
PSY101	Psychology of Human Relations or	
BT101	Human Relations in Organizations	3
		16
TOTAL PROGRAM CREDITS		51-52

¹ Required for graduation. Successful completion of CS101 or otherwise meeting the proficiency requirement within the last 10 years fulfills this requirement.

For more information contact the Manufacturing and Engineering Technology Department:

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