CNC MACHINING TECHNOLOGY, A.A.S.

Entry Time

Fall

Award

Associate of Applied Science degree
2 years (5 terms including summer)

Computer Numerical Control (CNC) machinists manufacture precision parts and products. They often complete many set-ups for short runs to meet just-in-time delivery demands. People who enter this field must be flexible and have basic knowledge of machine tool CNC.

Students program, edit, set up and operate CNC lathes and mills, as well as study quality control methods known as statistical process control. They also learn special quality control equipment, such as coordinate measuring machines, and advanced automated production methods.

Students can transfer credits from this program to UNI and work toward a B.A. in Technology Management and the University of Iowa and work towards a B.A. in Applied Studies.

Students are required to attain the following third-party credentials as part of the two-year AAS degree program: NIMS Level 1 Certifications.

Career Opportunities

- machinist
- mold builder
- salesperson
- job shop technician
- CNC programmer/operator
- quality control technician
- tool and die maker

Degree Requirements

Term 1		
Fall		**Credit Hours**
MAT-735	Machinist Mathematics I	2
MFG-120	Mach Trade Printreading I	1
MFG-128	Measurement, Matls and Safety	2
MFG-129	JobPlan,Benchwork,Layout-NIMS	2
MFG-297	Milling Machine Operations (NIMS)	3
MFG-385	Engine Lathe Operations(NIMS)	5
	Term Totals:	**15**
Term 2		
Spring		
MAT-736	Machinist Mathematics II	1
MFG-130	Machine Trade Printreading II	1
MFG-173	CNC Mill Operator-NIMS	2
MFG-174	CNC Lathe Operator-NIMS	2
MFG-298	Surface Grinding Oper-NIMS	2
MFG-332	CNC Mill Program & Setup-NIMS	3
MFG-334	CNC Lathe Program/Setup-NIMS	3
	Term Totals:	**14**
Term 3		
Summer		
MFG-388	Mfg Sheetmetal Practices	5
MFG-420	Jig and Fixture Design	2
	Term Totals:	**7**
Term 4		
Fall		
CAD-237	Geometric Dimensioning and Tolerancing	3
CAD-300	AutoCAD for Applied Engineer	2
MFG-367	Advanced CNC Programming	3
MFG-373	Computer Aided Manufacturing I	4
Communications Course		3
Humanities or History/Culture Course (https://creditcatalog.kirkwood.edu/aas-degree-humanities-requirement/)		3
	Term Totals:	**18**
Term 5		
Spring		
MFG-374	Comp Aided Manufacturing II	4
MFG-378	Mfg Production Methods	3
MFG-396	Alt Manufacturing Processes	3
Communications Course		3
MGT-145 or PSY-111	Human Relations in Management or Intro to Psychology	3
	Term Totals:	**16**
	Program Totals:	**70**

Optional Courses

Code	Title	Credit Hours
MFG-924	Honors Project	1
MFG-928	Independent Study	1-3

CNC Machining Technology Tool Requirements

Students in the CNC Machining Technology program are required to have a tool set for lab activities. Instructors will provide students with a list of minimum requirements. Students can purchase tool set through the Industrial Technologies Department or on their own. Payment plans can be arranged with the financial aid office.