

# Computer Numerical Controlled (CNC) Machining Certificate

## Program Description

The CNC Machining certificate is designed to prepare students for entry level CNC machining and programming positions. The program offers a series of skill-building courses in CNC machining and CAM programming for the individual desiring full-time employment in the CNC manufacturing industry.

## Program Contacts

- Instructional Specialist: Susie Check (susie.check@yc.edu), telephone: (928) 717-7761
- Professor: Dick Hartley (rhartley@instructor.yc.edu), telephone: (928) 776-2002
- Dean: John Morgan (john.morgan@yc.edu), telephone: (928) 717-7721

## Program Outcomes

Upon successful completion of the Computer Numerical Controlled (CNC) Machining Certificate program, the learner will be able to:

1. Program and operate a CNC mill and lathe. (CNC 101, MAT 100 (or higher), MET 100)
2. Design a product for CNC machining. (CNC 201, CNC 202)
3. Reverse engineer a product for 3D replication. (CNC 202)
4. Set tools for CNC machining of a given product. (CNC 102)

## Program Requirements

A minimum of 18 credit hours is required to complete the Computer Numerical Controlled (CNC) Machining Certificate.

Course	Course Title	Credit Hours
CNC101	CNC Machine Operator	2
CNC102	CNC Machine Set Up	2
CNC201	Comp Aided Program CNC Mach	3
CNC202	3-D Program & Rapid Prototype	4
MET100	Intro Manufacturing Technology	4
MAT 100 or higher:		
	MAT100 Technical Mathematics	3
OR	MAT122 Intermediate Algebra	3
OR	MAT142 College Mathematics	3
OR	MAT152 College Algebra	3
OR	MAT156 Math/Elementary Teachers I	3
OR	MAT157 Math/Elementary Teachers II	3
OR	MAT167 Elementary Statistics	3
OR	MAT183 Trigonometry	2
OR	MAT187 Precalculus	5
OR	MAT212 Survey of Calculus	3
OR	MAT220 Calculus & Analytic Geometry I	5
OR	MAT230 Calculus & Analytic Geometry II	5
OR	MAT241 Calculus III	4
OR	MAT262 Elementary Differential Equatn	3