

COMPUTERIZED NUMERICAL CONTROL - (QUICKSKILLS) CERTIFICATE - CNC7

The CNC certificate is designed for people with a machinist background who desire to learn about the basic operations of CNC (computerized numerical controlled) machinery. Good math and blueprint reading skills are essential for those who would like to study CNC programming. This certificate requires students to write simple CNC programs using the G and M codes to define tool paths and other CNC functions. The student will then program and operate CNC machines. The graduate will have a good working knowledge of CNC and the jobs associated with this type of work.

Requirements

Courses	Course Title	Credit Hours
Required Course Information		
MTT 105	Machine Tool Math Applications	3
MTT 120	Machine Tool Print Reading	3
MTT 121	Machine Tool Theory I	3
MTT 130	Fundamentals of Geometric Dimensions and Tolerances	2
MTT 143	Precision Measurements	2
MTT 251	CNC Operations	3
MTT 253	CNC Programming and Operations	3
Subtotal		19
Total Hours		19

Graduation Plan

Fall Start

Course	Title	Hours
First Year		
Fall Semester		
MTT 120	Machine Tool Print Reading	3
MTT 121	Machine Tool Theory I	3
MTT 143	Precision Measurements	2
MTT 251	CNC Operations	3
Hours		11
Spring Semester		
MTT 105	Machine Tool Math Applications	3
MTT 130	Fundamentals of Geometric Dimensions and Tolerances	2
MTT 253	CNC Programming and Operations	3
Hours		8
Total Hours		19

Spring Start

Course	Title	Hours
First Year		
Spring Semester		
MTT 105	Machine Tool Math Applications	3
MTT 130	Fundamentals of Geometric Dimensions and Tolerances	2
MTT 253	CNC Programming and Operations	3
Hours		8
Fall Semester		
MTT 120	Machine Tool Print Reading	3
MTT 121	Machine Tool Theory I	3
MTT 143	Precision Measurements	2
MTT 251	CNC Operations	3
Hours		11
Total Hours		19

Application and Advising

If you are ready to start your education, there are a few simple steps involved in enrolling at Piedmont Technical College.

Get Started Today (<https://www.ptc.edu/admissions/new-students/>)

Advising Information

The following information provides a guide for advisors who are helping students enroll in this program.

Program Notes

This certificate is designed for someone with an MTT degree or diploma, or 4+ years MTT work experience.

MTT courses are offered during days and evenings.

Program Student Learning Outcomes

Purpose Statement

The Computerized Numerical Control Certificate is designed for students with a machinist background who desire the knowledge of basic operations of CNC machinery. Students will learn basic CNC programming. Graduates will have good working knowledge of CNC and the jobs associated with this type of work.

Program Student Learning Outcomes

1. Apply theoretical knowledge gained in class to complete metal working projects to blueprint requirements.
2. Setup and safely operate all machine tools required for project completion.
3. Maintain the personal discipline to complete projects on time.
4. Use technology in machine shop related to on the job requirements.
5. Use applicable tooling correctly during various machining operations.