Machine Shop/Computer Numerical Control (CNC)

Career Certificate

Available: Phil Campbell and Shoals Campuses
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This certificate is designed to prepare students to enter the machine tool industry. Students entering this plan should have good manual dexterity to operate equipment, spatial comprehension, and math skills to interpret part shape and size from blueprints and a good mechanical aptitude. No high school diploma or GED is required, but students must be at least 16 years of age to enroll. Students without GED's are encouraged to use the College facilities to obtain a diploma while in the program.

The five-semester day plan (nine semester extended plan) exposes the student to most machine shop equipment. The student will operate drills, lathes, milling machines, and grinders. During the fourth semester, the student has the opportunity to learn the basics of CNC (Computer Numerical Control) programming, setup, and operation. An extensive study of CAM (Computer Aided Machining) is available through an elective course.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

NOTES:

* A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.

* Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

Program: Machine Shop Technology

Entrance Requirements

- Submit a completed application;
- High School diploma or equivalent required:
- Age Requirement:
- Submit official high school/high school equivalent transcripts, if applicable;
- Submit official college transcripts, if applicable;
- Satisfy Placement Testing requirements.

Required Courses

Item #	Title	Credits
	ENG 101 or ENG 100	3
	MTH 100 or MTH 116 or higher	3
MSP 101	Basic Machining Technology	5
MSP 102	Intermediate Machining Technology	5
MSP 103	Advanced Machining Technology	5
MSP 104	Basic Machining Calculations	2
MSP 105	Lathes	3
MSP 107	Milling Machines	3
MSP 111	Introduction to Computer Numerical Control	2
MSP 112	Basic Computer Numerical Control Turning	3
MSP 113	Basic Computer Numerical Control Milling	3
MSP 115	Advanced Milling Machines	5
MSP 121	Basic Blueprint Reading for Machinists	2
MSP 131	Introduction to Metrology	2
MSP 142	Advanced Machining Calculations	2
MSP 181	Special Topics - Grinding	2
MSP 221	Advance Blueprinting	2
	MSP Elective	2
	Minimum Credit Hours for Graduation:	**54**