

## Journeyman Machining Technology II, Certificate

### School of Technology

This program prepares students for upper entry-level employment in both the manual and computer numerical (CNC) machining industries. Students will learn to produce G-code programs for CNC mills and lathes using MasterCAM. Students will also learn the properties of materials and the processes used to turn raw materials into finished products. Students will learn to design and draw parts using AutoCAD. Students will also advance their mathematical skills for machine shop production.

This is the second of four certificate programs for students pursuing the Journeyman Machining Technology degree.

### Career Opportunities

Graduates of this program can expect to be employed as upper entry-level machinists, tool and die makers, metalworkers, CNC programmers and CNC operators. These classes may also be used toward a Pennsylvania Journeyman Certification with shops associated with Westmoreland.

### Program Learning Outcomes

Upon successfully completing this program, students will be able to:

- Generate G-code programs using MasterCAM.
- Execute these programs on CNC mills and lathes.
- Select appropriate materials and processes to produce parts.
- Design parts and fixtures using AutoCAD.
- Solve advanced mathematical shop formulas.

Sugg. Term	Seq #	Course ID	Course Title	Cr .	Term Offered	Prereq(s)	Options Available
Spring	1	PDV 101	First Year Seminar	1	F, Sp, Su		
	2	CNC 112	Computer Numerical Control II	4	F, Sp	CNC 111	
	3	DFT 258	AutoCAD	4	F, Sp		
	4	MTH 109	Mathematics for Technologies II	4	F, Sp, Su	MTH 108 or Placement	
	5	MTT 112	Machining II	4	Sp	MTT 111	

Total Program Credits

17