

## Journeyman Machining Technology, Certificate III

### School of Technology

This program prepares students for lower mid-level employment in both the manual and computer numerical (CNC) machining industries. Students will learn to produce multi-axis mill and lathe G-code programs using MasterCAM. They will also learn the design principles for creating jigs and fixtures used in production work. Students will learn to use manual and digital methods to inspect parts to specific tolerances. Students will also learn to communicate effectively.

This is the third of four certificate programs for students pursuing the Journeyman Machining Technology AAS.

### Career Opportunities

Graduates of this program can expect to be employed as lower mid-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 multi-axis G-code using MasterCAM.
- Execute these programs on multi-axis lathes and mills.
- Design and build production jigs and fixtures.
- Inspect parts based on tolerance specifications.
- Communicate effectively and appropriately.

Sugg. Term	Seq #	Course ID	Course Title	Cr	Prereq/Coreq(Co)	Options Available
Fall	1	PDV 101	First Year Seminar	1		
	2	CNC 213	Computer Numerical Control III	4	CNC 112	
	3	MTT 207	Tool Design	3		
	4	ENG 161	College Writing	3	ENG 085 or Placement	
	5	MTT 201	Inspection	3	MTT 101	
	6	Elective	Restricted Elective	4		See List

Total Program Credits

18

JRNT3

Restricted Electives: DFT 266; MTT 213; WEL 125;

Courses with Prefix: DFT, RBT, ELC, EGR, HAC, MET, PHY, WEL (Prefix courses must be approved and meet credit requirements.)