

MACHINE TOOL TECHNOLOGY: TOOL AND DIE MAKER OPTION (CERT)

CERTIFICATE OF ACHIEVEMENT

The Tool and Die Maker Certificate of Achievement program provides students with a technical education in basic and advanced training in tool and die making, numerical control machining and quality control. These fundamental skills and expected knowledge prepare students for employment with potential for future advancement in the metal working industry. Enrolled students are strongly positioned for employment opportunities with manufacturing companies in the machining industry throughout the course of the Program. Typical job titles can include but not limited to Machinist, Machine Operators, Tool & Die Maker Apprentice.

Program Student Learning Outcomes

- Apply industry standard safety practices and specific safety requirement for different types of machining.
- Interpret blueprint information and translate it into actionable items.
- Calculate necessary tolerances to plan for machine sequences.
- Perform the set up and operation of manual machines, such as band saw, lathe, mill, and CNC machines.
- Calculate adjust speed, feed and other parameters to produce the part.
- Inspect the produced part to ensure completion per blueprint requirements.
- Complete an industry standard inspection report.

Program Requirements

Code Number	Course Title	Units
Required Courses		
MTT 100	Machine Tool Introduction	2.0
MTT 130	Quality Practices and Measurement	2.0
MTT 131	Geometric Tolerance Inspection using Verisurf	3.0
MTT 132	Fixture and Tool Building using Verisurf	3.0
MTT 140	Industrial and Machine Tool Safety	1.0
MTT 151	Mastercam Introduction	3.5
MTT 152	Setup and Operation of CNC Milling Machines	2.5
MTT 157	Setup and Operation of CNC Lathes	2.5
MTT 191L	CNC Mill Machining Laboratory	1.0
MTT 194L	Manual Machining Lab	1.0
MTT 195L	CNC Lathe Machining Laboratory	1.0
Total Units		22.5