

# MACHINE TOOL TECHNOLOGY: MACHINIST OPTION (A.S.)

## ASSOCIATE OF SCIENCE

The Machine Tool Technology – Machinist Associate of Science provides students an education that combines general education with basic and advanced training in manual or conventional machining, computer numerical programming and operation. These trainings form the fundamental skills necessary for the average and expected workload in the machining 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 Machine Operators, Machinist, Manufacturing Technicians, Operations Technicians.

### Program Student Learning Outcomes

- Students apply industry standard safety practices and specific safety requirement for different machining operations.
- Students interpret blueprint information and translate into actionable items.
- Students calculate necessary tolerances to plan for machining sequences
- Students perform the set up and operation of band saw, lathe, mill, drill press and CNC machines.
- Students calculate and adjust speed, feed rate and other parameters to properly produce the part.
- Students inspect the produced part to ensure completion per blueprint requirement.
- Students complete an industry standard inspection report.

## Program Requirements

Code Number	Course Title	Units
<b>Required Courses</b>		
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 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
<b>Total Units</b>		<b>18.5</b>

## ASSOCIATE OF ARTS DEGREE REQUIREMENTS

Students must complete the required major courses, the Cerritos College Associate of Arts General Education requirements, and electives as needed. Students must earn a 2.0 grade point average and earn a grade of "C" or higher in major/emphasis courses.