

YORK TECHNICAL COLLEGE

TECHNICAL STANDARDS FOR MACHINE TOOL TECHNOLOGY RELATED PROGRAMS ESSENTIAL FUNCTIONS OF A MACHINE TOOL TECHNICIAN:

1. Perform machining tasks including:
 - a. Hand tools and machining equipment
 - b. Geometric Construction
 - c. Measurements
 - d. CNC Operation
2. Construct and evaluate prints
3. Have an understanding of machining and CNC machine operation
4. Safety regulation
5. Clean and maintain equipment

MINIMUM QUALIFICATIONS NECESSARY TO PERFORM ESSENTIAL FUNCTIONS OF A MACHINE TOOL TECHNICIAN

PHYSICAL REQUIREMENT: Must possess medium physical strength.

BLUEPRINTS: Must be able to study blueprints, sketches or other specifications to determine necessary materials and procedures.

SPECIFICATIONS: Must be able to develop specifications from general descriptions.

PARTS ASSEMBLY: Must be able to assemble parts made on lathes, milling machines, or grinders.

INSTRUMENTS: Must be able to verify dimensions, alignment and conformity of work pieces to blueprint specifications using measuring instruments.

MACHINE TESTING: Must be able to test machines for malfunctions.

LOCATE CUTS AND BORES: Must be able to calculate where to bore or cut into the metal.

METAL WORKING: Must be able to use machine and hand tools to set up, repair and adjust metalworking machines.

MATERIAL LAYOUT: Must be able to measure and mark dimensions and reference points to layout stock for machining.

VISUALIZATION: Must be able to visualize the final product from blueprints, sketches, models or written specifications.

MACHINE SELECTIONS: Must be able to determine the type of stock, layout, machining and assembly operations needed to complete the job.

MACHINE FUNCTIONS: Must be able to set up and operate machine tools.

HAND TOOLS: Must use hand tools to smooth and finish the work piece.

DIMENSIONS: Must be able to use precision measuring instruments to check for proper dimensions of the work piece.

SAFETY: Must be able to follow strict safety procedures.

EQUIPMENT OPERATION: Must be able to operate the following types of equipment: hand tools, lathes, milling machines, drilling machines, grinders, micrometers, holding fixtures, calipers, jig boring, height gauges, gauge blocks, blueprints and specifications, vises, V-blocks, angle plates, dividers, scribes, surface plates, files, taps, dial indicators, computers, and CNC equipment.

ACCURACY: Must be able to work within precise standards of accuracy.

PHYSICAL REQUIREMENTS: Must be physically able to: see well, either naturally or with correction; use hands or fingers to manipulate objects; possess good hand-eye coordination; stoop, kneel, crouch, and crawl; and lift, carry, and transport objects weighing up to 50 pounds.

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Office (SRO) at 803-327-8007, located in the Student Services Building within the Counseling and Support Services Area. The SRO coordinates reasonable accommodations for students who self-identify their documented disability.