TENNESSEE COLLEGE OF APPLIED TECHNOLOGY
KNOXVILLE

Machine Tool Technology

16 Month Day Program (M-F, 8:00am to 2:30pm)
Offered at the Ruth and Steve West Workforce Development Center

About

The Machine Tool Technology program develops basic skills in machine tool operations and provides experience on a variety of machine tools such as lathes, milling machines, computer numerical control (CNC) machines, and the CAD-CAM. Related math, blueprint reading, precision measuring, basic metallurgy, and heat treating are included. Graduates of the Machine Tool Technology program will be able to operate the lathe, milling machines such the CNC machine, surface grinders, and perform heat treating operations.

Completion Awards

432   Production Machine Tender Certificate

864   Machine Set-up Operator Certificate

1296 General Machinist Diploma

1728 Machinist I Diploma

Curriculum and Courses

All full-time TCAT Knoxville programs include Workplace Characteristic courses each trimester.

- Technology Foundation
- Orientation and Practical Safety
- Math Concepts I & II
- Engineering Drawings I, II (CAD), & III (CAM)
- Shop Theory I, II III, & IV
- Benchwork & Manual Machine Tool
- Manual Lathe
- Manual Milling Machine
- Grinding and Abrasive Machines
- Manufacturing Materials & Processes
- Intro to Comp Numerical Ctrl
- Precision Grinding
- Comp Numerical Ctrl Machining
- Employability Skills
- Intro to Additive Manufacturing
- CNC Turning Center
- CNC Machining Center
- Electrical Discharge Machining

Completion Rate (as of 2022)

77%

Placement Rate (as of 2022)

80%

LEARN MORE!

How To Apply

☐ Complete TCAT Knoxville Application for Enrollment online at **www.tcatknoxville.edu**.

☐ Complete the Free Application For Federal Student Aid (FAFSA) online at **www.studentaid.gov**. Our school code is 004025.

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