



MISSION STATEMENT

The Tennessee Colleges of Applied Technology serve as premier suppliers of workforce development throughout Tennessee. The colleges fulfill their mission by:

- Providing competency-based training through superior quality, traditional and distance learning instruction methods that qualify completers for employment and job advancement;
- Contributing to the economic and community development of the communities served by training and retraining employed workers;
- Ensuring that programs and services are economical and accessible to all residents of Tennessee; and
- Building relationships of trust with community, business, and industry leaders to supply highly skilled workers in areas of need.



A **Tennessee Board of Regents** Institution
AA/ADA/EEO Training Institution

Accredited by **Council on Occupational Education**
7840 Roswell Road, Building 300, Suite 325
Atlanta, GA. 30350 • 770-396-3898

TCAT Upper Cumberland is an equal access, equal opportunity organization. More: tbr.edu/nds. 2026/07/P28-26



CLASS SCHEDULES

Full-time classes are offered Monday through Friday between the hours of 7:45 a.m. and 2:30 p.m. Part-time class schedules may vary according to local needs.

This program is offered at the main campus and at the Livingston campus.

STUDENT COST

Cost can be found on our website:
www.tcatuppercumberland.edu/programs.

FINANCIAL AID

Financial aid is available to those students who are eligible. Students can be assessed for eligibility for Federal Pell Grants, Federal SEOG, TN Student Assistance Award, Wilder-Naifeh Technical Skills Grant, TN Promise, TN Reconnect and Federal Work Study. The school also coordinates efforts with the Department of Veteran's Affairs, Voc. Rehabilitation, WIOA, TRA and TOPS.

LOCAL HIGH SCHOOL ARTICULATION

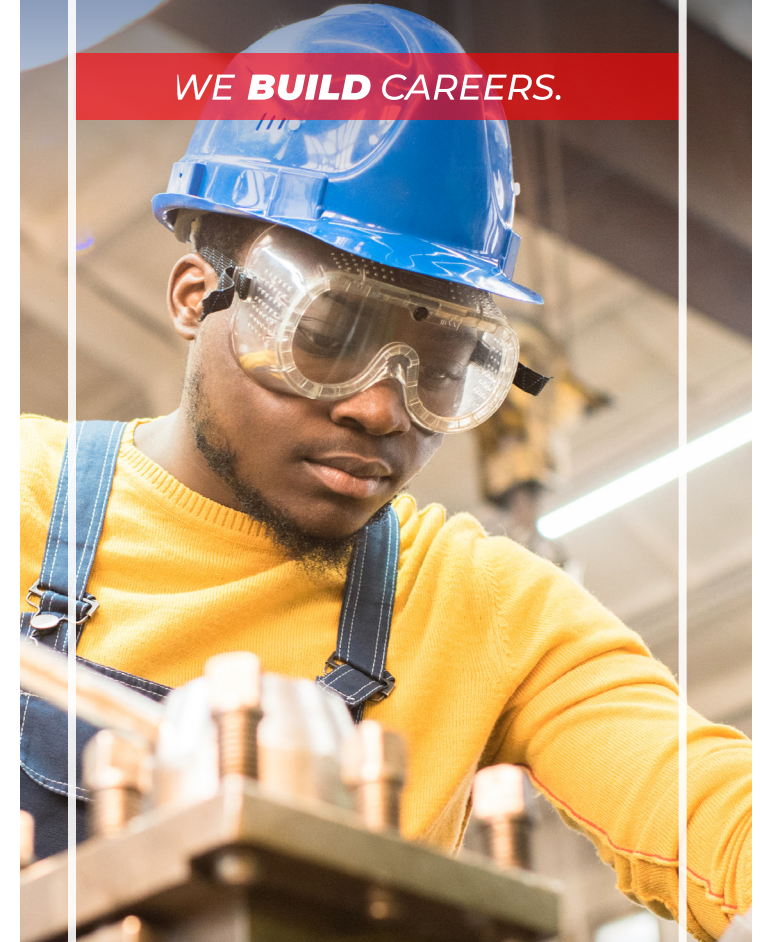
TCAT Upper Cumberland has articulation agreements with local high schools in the school's service area. These agreements establish guidelines by which high school students may receive advanced placement in programs for skills acquired in high school. For more information on how to receive advanced placement, contact your high school guidance counselor or the Student Services Office at TCAT Upper Cumberland.

910 MILLER AVE
CROSSVILLE, TN 38555
931-484-7502

TCATUPPERCUMBERLAND.EDU

MACHINE TOOL TECHNOLOGY

WE BUILD CAREERS.



TCAT
UPPER CUMBERLAND



PROGRAM DESCRIPTION

Build the skills to turn raw materials into precise, high-quality parts used across modern manufacturing. In the Machine Tool Technology program, you will gain hands-on training in the tools, techniques and technology used to shape, cut and finish metal components. Training focuses on accuracy, problem-solving and the practical skills needed in machining and precision manufacturing.

You will learn how to:

- Operate lathes, milling machines, grinders, electrical discharge machinery (EDM) and other machine tools
- Set up and work with computer numeric control (CNC) equipment for precision part production
- Use computer-aided design (CAD)/computer-aided manufacturing (CAM) software to support machining and manufacturing processes
- Read and interpret blueprints and technical drawings
- Measure parts accurately with precision measuring tools
- Apply basic metallurgy concepts to understand material properties and performance
- Follow safe shop practices and industry standards
- Build the technical skills needed for entry-level work in machining and manufacturing

CERTIFICATES & DIPLOMAS

Certificates

Production Machine Tender	432 hours
Machine Set-Up Operator	864 hours

Diplomas

General Machinist	1296 hours
Machinist I	1728 hours

ADMISSION POLICY

A. Applicants Not Enrolled in High School

Applicants not enrolled in high school are eligible for admission provided that:

1. They are at least 18 years of age or have a high school diploma or equivalent.
2. They declare an occupational objective or demonstrate through testing or counseling reasonable potential for achieving that objective.

B. Applicants Enrolled in High School

Applicants enrolled in high school are eligible for admission provided that:

1. An agreement authorizing such admission concluding between the local Board of Education and the Tennessee College of Applied Technology. Such agreements are subject to the approval of the chancellor or his designee.
2. Admission of Foreign Non-Immigrants. Foreign non-immigrant applicants are eligible for admission if they meet the same conditions required for other applicants.

ADMISSION PROCEDURES

STEPS FOR ENROLLMENT



COURSES

First Trimester

Worker Characteristic
Technology Foundation
Orientation & Practical Safety
Math Concepts I
Engineering Drawings I
Shop Theory I
Bench Work & Manual Machine Tool

Second Trimester

Worker Characteristic
Math Concepts II
Engineering Drawings II CAD
Shop Theory II
Manual Lathe
Manual Milling Machine
Grinding and Abrasive Machines
Manufacturing Materials & Processes
Introduction to Computer Numerical Control

Third Trimester

Worker Characteristic
Engineering Drawings III CAM
Shop Theory III
Precision Grinding
Computer Numerical Control Machining

Fourth Trimester

Worker Characteristic
Employability Skills
Intro to Additive Manufacturing
Shop Theory IV
CNC Turning Center
CNC Machining Center
Electrical Discharge Machining

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