



## 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](http://tbr.edu/nds). 2024/07/1701



## CLASS SCHEDULES

Full-time classes are offered Monday through Friday between the hours of 7:45 a.m. and 2:15 p.m. Part-time class schedules may vary according to local needs.

This program is offered at the main campus.

## STUDENT COST

Cost can be found on our website:  
[www.tcatuppercumberland.edu/programs](http://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

The Tennessee College of Applied Technology 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

The Machine Tool Technology program is designed to provide the student with the ability to work as a machine tool operator, machinist, tool and die maker, industrial maintenance machinist and those in related occupations that require skill in machining metal with such machines as milling machines, lathes, grinders, drill presses, CNC machinery, EDM machinery including the ability to interpret part prints and use precision measuring tools.

## 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



**1**  
PICK A PROGRAM



**2**  
FILL OUT ONLINE APPLICATION



**3**  
SUBMIT PROGRAM SPECIFIC APPLICATION MATERIALS (IF REQUIRED)



**4**  
REQUEST/SUBMIT TRANSCRIPTS



**5**  
COMPLETE FAFSA



**6**  
SET UP YOUR TCAT STUDENT EMAIL

## 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