

# Machine Tool Technology

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.

Program/Location	Length	Days	Time
Day Program / Knoxville Campus	16 Months	Monday—Friday	8:00 am—2:30 pm

## Curriculum/Courses

MTT 0001	Worker Characteristic	MTT 4020 Intro to Additive Mfg
MTT 1010	Technology Foundations	MTT 4030 Shop Theory IV
MTT 1020	Orientation and Practical Safety	MTT 4040 CNC Turning Center
MTT 1030	Math Concepts I	MTT 4050 CNC Machining Center
MTT 1040	Engineering Drawings I	MTT 4060 Electrical Discharge Machining
MTT 1050	Shop Theory I	
MTT 1060	Benchmark & Manual Machine Tool	

		<u>Completion Awards</u>	<u>Required Hours</u>
MTT 0002	Worker Characteristic	Production Machine Tender	<b>432</b>
MTT 2010	Math Concepts II	Machine Set-Up Operator	<b>864</b>
MTT 2020	Engineering Drawings II CAD	General Machinist	<b>1296</b>
MTT 2030	Shop Theory II	Machinist I	<b>1728</b>
MTT 2040	Manual Lathe		
MTT 2050	Manual Milling Machine		
MTT 2060	Grinding and Abrasive Machines		
MTT 2070	Mfg Materials & Processes		
MTT 2080	Intro to Comp Numerical Ctrl Machining		
MTT 0003	Worker Characteristic		
MTT 3010	Engineering Drawings III CAM		
MTT 3020	Shop Theory III		
MTT 3030	Precision Grinding		
MTT 3040	Comp Numerical Ctrl Machining		
MTT 0004	Worker Characteristic		
MTT 4010	Employability Skills		

**Completion Rate 2021: 90%**

**Graduation Rate 2021: 94%**

## HOW TO APPLY

***All Documents Must be Presented Together to Apply***

Complete the **Free Application For Federal Student Aid (FAFSA)** online – the website is [www.studentaid.gov](http://www.studentaid.gov) and our school code is 004025.

Complete **TCAT Knoxville Application for Enrollment** online at [www.tcatknoxville.edu](http://www.tcatknoxville.edu) and select **APPLY NOW**