



# 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	TCAT Knoxville Main Campus	16 Months	Monday-Friday	8:00am—2:30 pm
Day Program	TCAT Knoxville at Anderson County Campus	16 Months	Monday-Friday	8:00am—2:30 pm
Night Program	TCAT Knoxville Main Campus	16 Months	Monday-Friday	3:30 pm—10:00 pm

Curriculum/Courses				Typical Job Opportunities
MTT	Courses	MTT	Courses	
MTT 0001	Worker Characteristic	MTT 0004	Worker Characteristic	Machinist CNC Operator
MTT 1010	Technology Foundations	MTT 4010	Employability Skills	
MTT 1020	Orientation & Practical Safety	MTT 4020	Intro to Additive Mfg	
MTT 1030	Math Concepts I	MTT 4030	Shop Theory IV	
MTT 1040	Engineering Drawings I	MTT 4040	CNC Turning Center	
MTT 1050	Ship Theory I	MTT 4050	CNC Machining Center	
MTT 1060	Benchwork & Manual Machine Tool	MTT 4060	Electrical Discharge Machining	
		Completion Award		Required Hours
MTT 0002	Worker Characteristic	Production Machine Tender	Certificate	432
MTT 2010	Math Concepts II	Machine Set-up Operator	Certificate	864
MTT 2020	Engineering Drawings II CAD	General Machinist	Diploma	1296
MTT 2030	Shop Theory II	Machinist I	Diploma	1728
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			

**Total Completion Rate 2017: 93%**

## 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.fafsa.ed.gov](http://www.fafsa.ed.gov) and our school code is 004025.

⇒ Complete **TCAT Knoxville Application for Enrollment** online at <https://apply.tbr.edu/?tcat=knoxville>