

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.

Progra	Location		Length	Days		Time
Day Prog	Day Program TCAT Knoxville Main Campus		16 Months	Monday-Friday	8:00	am—2:30 pm
Day Program TCAT Knoxville at Anderson County Can		Campus	16 Months	Monday-Friday	8:00	am—2:30 pm
Night Pro	gram TCAT Knoxville Main Campus		16 Months	Monday-Friday	3:30 p	om—10:00 pm
	Curriculum/Courses	MTT 0004	4 Worker Ch	naracteristic		
MTT 0001	Worker Characteristic	MTT 401	0 Employabi	lity Skills	Typical I	ob Opportunities
MTT 1010	Technology Foundations	MTT 402	0 Intro to Ad	ditive Mfg	Machinist	• •
MTT 1020	Orientation & Practical Safety	MTT 403	O Shop Theo	ory IV	CNC Oper	ator
MTT 1030	Math Concepts I	MTT 404	O CNC Turnii	ng Center		
MTT 1040	Engineering Drawings I	MTT 405	0 CNC Mach	ining Center		
MTT 1050	Ship Theory I	MTT 406	0 Electrical [Discharge Machini	ng	
MTT 1060	Benchwork & Manual Machine Tool		Complet	ion Award	R	equired Hours
MTT 0002	Worker Characteristic	Producti	ion Machine		ificate	432
MTT 2010	Math Concepts II					
MTT 2020	Engineering Drawings II CAD	Machine	Set-up Oper	ator Cert	ificate	864
MTT 2030	Shop Theory II	General	General Machinist		loma	1296
MTT 2040	Manual Lathe	Machini	Machinist I		loma	1728
MTT 2050	Manual Milling Machine				DDIV	
MTT 2060	Grinding and Abrasive Machines	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 and our school code is 004025.
- ⇒ Complete TCAT Knoxville Application for Enrollment online at https://apply.tbr.edu/?tcat=knoxville

Total Completion Rate 2017: 93%

Shop Theory III

Precision Grinding

Mfg Materials & Processes

Engineering Drawings III CAM

Comp Numerical Ctrl Machining

Worker Characteristic

Intro to Comp Numerical Ctrl Machining

MTT 2070

MTT 2080

MTT 0003

MTT 3010

MTT 3020

MTT 3030

MTT 3040



Machine Tool Technology

Book, Tool, and Supply List

Tuition					
Tuition*	1st Trimester				
Technology Access Fee*	Tuition		Cost		Total
Student Activity Fee*	Tuition*		\$ 1,169.00		
Needed By State	Technology Access Fee*		\$ 67.00		
Supplies	Student Activity Fee*		\$ 10.00		
Supplies Needed By Cost Required	OSHA 10 Training		\$ 25.00		
Denim Jeans	TOTAL				\$1,271.00
Denim Jeans					
Stack Short Sleeve Polo Shirts with Pocket First day of class \$ 60.00 x	Supplies	Needed By	Cost	Required	
Steel Toe Work Boots	Denim Jeans	First day of class	\$ 35.00	х	
USB Flash Drive 2 GB	3 Black Short Sleeve Polo Shirts with Pocket	First day of class	\$ 60.00	х	
Safety Glasses	Steel Toe Work Boots	First day of class	\$ 140.00	х	
September Sept	USB Flash Drive 2 GB	First day of class	\$ 12.00	х	
Book & Tool Kit	Safety Glasses	First day of class	\$ 10.00	х	
Elementary Blueprint Reading for Machinists, 5th edition 9781401862565 \$ 162.00 x Machining Fundamentals, 9th Ed. 9781619602090 \$ 116.00 x Machinist Ready Reference, 10th edition 9780970339850 \$ 43.00 x Machinist Ready Reference, 10th edition 9780970339850 \$ 43.00 x Machinist Ready Reference, 10th edition 9781619602144 \$ 30.00 x Machinist Calc Pro 2 Calculator no isbn \$ 90.00 x TCAT Machine Shop Tool Kit Includes the below items no isbn \$ 64.00 Thread Gauge (Included in Kit) x X Machinist Rule (Included in Kit) x X X X X X X X X X	TOTAL				\$257.00
Elementary Blueprint Reading for Machinists, 5th edition 9781401862565 \$ 162.00 x Machining Fundamentals, 9th Ed. 9781619602090 \$ 116.00 x Machinist Ready Reference, 10th edition 9780970339850 \$ 43.00 x Machinist Ready Reference, 10th edition 9780970339850 \$ 43.00 x Machinist Ready Reference, 10th edition 9781619602144 \$ 30.00 x Machinist Calc Pro 2 Calculator no isbn \$ 90.00 x TCAT Machine Shop Tool Kit Includes the below items no isbn \$ 64.00 Thread Gauge (Included in Kit) x X Machinist Rule (Included in Kit) x X X X X X X X X X					
Machining Fundamentals, 9th Ed. 9781619602090 \$ 116.00 x Machinist Ready Reference , 10th edition 9780970339850 \$ 43.00 x Machinist Ready Reference , 10th edition 9781619602144 \$ 30.00 x Machinist Calc Pro 2 Calculator no isbn \$ 90.00 x TCAT Machine Shop Tool Kit Includes the below items no isbn \$ 64.00 Thread Gauge (Included in Kit) x Machinist Rule (Included in Kit) x Packet Scribe (Included in Kit) Center Drill #4 (Included in Kit) x Center Drill #5 (Included in Kit) x 2 Tool Blanks (Included in Kit) x TOTAL Student Activity Fee* \$ 67.00 Student Activity Fee* TOTAL 3rd Trimester Tuition Cost Total Total 3rd Trimester Tuition* \$ 1,169.00 Total Total Total Stage of the packed in Kit)	Book & Tool Kit	ISBN	Cost	Required	
Machinist Ready Reference , 10th edition 9780970339850 \$ 43.00 x Machining Fundamentals Workbook, 9th Ed. 9781619602144 \$ 30.00 x Machinist Calc Pro 2 Calculator no isbn \$ 90.00 x TCAT Machine Shop Tool Kit Includes the below items no isbn \$ 64.00 Thread Gauge (Included in Kit) x Machinist Rule (Included in Kit) x Pocket Scribe (Included in Kit) x Center Drill #4 (Included in Kit) x Center Drill #5 (Included in Kit) x 2 Tool Blanks (Included in Kit) x TOTAL \$505.00 Znd Trimester Tuition* \$ 1,169.00 Technology Access Fee* \$ 10.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 Ard Trimester Tuition* Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00	Elementary Blueprint Reading for Machinists, 5th edition	9781401862565	\$ 162.00	х	
Machining Fundamentals Workbook, 9th Ed. 9781619602144 \$ 30.00 x Machinist Calc Pro 2 Calculator no isbn \$ 90.00 x TCAT Machine Shop Tool Kit Includes the below items no isbn \$ 64.00 Thread Gauge (Included in Kit) x Machinist Rule (Included in Kit) x Pocket Scribe (Included in Kit) x Center Drill #4 (Included in Kit) x 2 Tool Blanks (Included in Kit) x 2 Tool Blanks (Included in Kit) x TOTAL \$505.00 2 Total Tuition* \$ 1,169.00 Total 3 Total Total 3 Total Total 3 Total Tuition* Cost Total Total 3 Total Tuition* \$ 1,169.00 Total Total Total	Machining Fundamentals, 9th Ed.	9781619602090	\$ 116.00	х	
Machinist Calc Pro 2 Calculator TCAT Machine Shop Tool Kit Includes the below items Thread Gauge (Included in Kit) Machinist Rule (Included in Kit) Pocket Scribe (Included in Kit) Center Drill #4 (Included in Kit) Z Tool Blanks (Included in Kit) TOTAL 2 Tool Blanks (Included in Kit) Tuition* Technology Access Fee* Student Activity Fee* Tuition 3rd Trimester Tuition* Tuition* Student Activity Fee* Tuition Total Stadent Activity Fee* Total Tition Total Stadent Activity Fee* Total Tition Total Tition Total Tition Total Tition Total Tition Total Total	Machinist Ready Reference , 10th edition	9780970339850	\$ 43.00	х	
TCAT Machine Shop Tool Kit Includes the below items Thread Gauge (Included in Kit) Machinist Rule (Included in Kit) Pocket Scribe (Included in Kit) Center Drill #4 (Included in Kit) Center Drill #4 (Included in Kit) Z Tool Blanks (Included in Kit) TOTAL 2 Tool Blanks (Included in Kit) Total Tuition* Technology Access Fee* \$ 67.00 Student Activity Fee* Tuition Cost Total \$1,246.00 Technology Access Fee* \$ 10.00 TOTAL \$1,169.00 TOTAL \$1,169.00 TOTAL \$1,169.00 TOTAL \$1,169.00 Total Tuition* \$1,169.00 Total Tuition* \$1,169.00 Total Tuition* \$1,169.00 Technology Access Fee* \$ 67.00	Machining Fundamentals Workbook, 9th Ed.	9781619602144	\$ 30.00	х	
Thread Gauge (Included in Kit) Machinist Rule (Included in Kit) Pocket Scribe (Included in Kit) Center Drill #4 (Included in Kit) Center Drill #5 (Included in Kit) 2 Tool Blanks (Included in Kit) TOTAL S505.00 2nd Trimester Tuition Tuition* \$1,169.00 Technology Access Fee* \$10.00 TOTAL \$1,246.00 3rd Trimester Tuition* \$1,169.00 Total \$1,246.00 Technology Access Fee* \$\$10.00 TOTAL \$1,169.00 TOTAL \$1,246.00	Machinist Calc Pro 2 Calculator	no isbn	\$ 90.00	х	
Machinist Rule (Included in Kit) x Pocket Scribe (Included in Kit) x Center Drill #4 (Included in Kit) x Center Drill #5 (Included in Kit) x 2 Tool Blanks (Included in Kit) x TOTAL \$505.00 2nd Trimester Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00 Student Activity Fee* \$ 10.00 \$1,246.00 TOTAL \$1,246.00 3rd Trimester Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00 Technology Access Fee* \$ 67.00 \$ 67.00	TCAT Machine Shop Tool Kit Includes the below items	no isbn	\$ 64.00		
Pocket Scribe (Included in Kit)	Thread Gauge (Included in Kit)			х	
Pocket Scribe (Included in Kit)	Machinist Rule (Included in Kit)			х	
Center Drill #4 (Included in Kit) x Center Drill #5 (Included in Kit) x 2 Tool Blanks (Included in Kit) x TOTAL \$505.00 2nd Trimester Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 3rd Trimester Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00 Technology Access Fee* \$ 67.00 \$ 67.00				х	
Center Drill #5 (Included in Kit) x 2 Tool Blanks (Included in Kit) x \$505.00 2nd Trimester Tuition Cost Total Tuition* \$ 1,169.00 \$ 67.00 Student Activity Fee* \$ 10.00 \$ 1,246.00 TOTAL \$ 1,246.00 3rd Trimester Tuition Cost Total Tuition* \$ 1,169.00 \$ 1,169.00 Technology Access Fee* \$ 67.00 \$ 67.00	·				
TOTAL \$505.00					
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Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00	TOTAL				7303.00
Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00	2 and Tuins and an				
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Technology Access Fee* \$ 67.00 Student Activity Fee* \$ 10.00 TOTAL \$1,246.00 Student Activity Fee* TOTAL \$1,246.00 Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00					Total
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TOTAL \$1,246.00 3rd Trimester Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00					
3rd Trimester Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00	•		\$ 10.00		
Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00	TOTAL				\$1,246.00
Tuition Cost Total Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00					
Tuition* \$ 1,169.00 Technology Access Fee* \$ 67.00	3rd Trimester				
Technology Access Fee* \$ 67.00	Tuition		Cost		Total
Technology Access Fee* \$ 67.00	Tuition*		\$ 1,169.00		
	Technology Access Fee*				
Student Activity Fee* \$ 10.00	Student Activity Fee*		\$ 10.00		
TOTAL \$1,246.00	TOTAL				\$1,246.00
Supplies Needed By Cost Required	Supplies	Needed By	Cost	Required	
Flashdrive First day of class \$ 10.00 x		First day of class	\$ 10.00	х	
3 Ring Binder First day of class \$ 3.00 x	3 Ring Binder	First day of class	\$ 3.00	х	
25 Sheet Protectors First day of class \$ 5.00 x	25 Sheet Protectors	First day of class	\$ 5.00	х	

TOTAL \$18.00

4th Trimester				
Tuition	Cost			Total
Tuition*	\$ 1,169.00			
Technology Access Fee*	\$ 67.00			
Student Activity Fee*	\$ 10.00			
TOTAL			\$:	1,246.00
Miscelleanous Cost	Cost	Required		
Graduation Supplies	\$ 40.00	х		
TOTAL			\$	40.00
TOTAL PROGRAM COST \$5,829				