



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	8:00am—2:30 pm
Night Program/Knoxville Campus	16 Months	Monday-Thursday	3:30 pm—10:30 pm

COURSE OUTLINE

Orientation & Practical Safety
 Technology Foundations
 OSHA 10 Training
 Worker Ethics I
 Math Concepts I
 Engineering Drawings I
 Shop Theory I
 Benchwork and Manual Machine Tools
 Worker Ethics II
 Math Concepts II
 Engineering Drawings II/CAD
 Shop Theory II
 Manual Lathe
 Manual Milling Machine
 Grinding and Abrasive Machines
 Manufacturing Materials and Processes
 Introduction to Computer Numerical Control
 Worker Ethics III
 Engineering Drawings III/CAM
 Shop Theory III
 Precision Grinding
 Computer Numerical Control Machining
 Employability Skills
 Worker Ethics IIII
 Introduction to Additive Manufacturing
 Shop Theory IIII
 CNC Turning Center
 CNC Machining Center
 Electrical Discharge Machining

Typical Job Opportunities

Machinist
 CNC Operator

Diplomas & Required Clock Hours

Machinist I—1,728
 General Machinist—1,296

Certificates & Required Clock Hours

Machine Set-up Operator-864
 Production Machine Tender—432

Total Completion Rate 2015: 88%

Total Placement Rate 2015: 100%

HOW TO APPLY

All Documents Must be Presented Together to Apply

- 1. FAFSA—Provide Proof of Completed FAFSA
School Code = 004025**
- 2. Immunizations—Provide Proof of Required
Immunizations (Form is Attached)**
- 3. Complete TCAT Application for Enrollment
(Form is Attached)**
- 4. Provide proof of official transcripts of education
from high school, high-school equivalency or
other colleges & universities.**

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Book, Tool, and Supply List

1st Trimester				
Tuition		Cost		Total
Tuition*		\$	1,139.00	
Technology Access Fee*		\$	67.00	
Student Activity Fee*		\$	10.00	
TOTAL				\$1,216.00
Supplies				
		Needed By	Cost	Required
Denim Jeans		First day of class	\$ 35.00	x
3 Black Short Sleeve Polo Shirts with Pocket		First day of class	\$ 60.00	x
Steel Toe Work Boots		First day of class	\$ 140.00	x
USB Flash Drive 2 GB		First day of class	\$ 12.00	x
Safety Glasses		First day of class	\$ 10.00	x
TOTAL				\$257.00
Book & Tool Kit				
		ISBN	Cost	Required
Elementary Blueprint Reading for Machinists, 5th edition		9781401862565	\$ 159.00	x
Machining Fundamentals, 9th Ed.		9781619602090	\$ 87.00	x
Machinist Ready Reference , 10th edition		9780970339850	\$ 54.00	x
Machining Fundamentals Workbook, 9th Ed.		9781619602144	\$ 30.00	x
Machinist Calc Pro 2 Calculator		no isbn	\$ 80.00	x
TCAT Machine Shop Tool Kit Includes the below items		no isbn	\$ 64.00	
	<i>Thread Gauge (Included in Kit)</i>			x
	<i>Machinist Rule (Included in Kit)</i>			x
	<i>Pocket Scribe (Included in Kit)</i>			x
	<i>Center Drill #4 (Included in Kit)</i>			x
	<i>Center Drill #5 (Included in Kit)</i>			x
	<i>2 Tool Blanks (Included in Kit)</i>			x
TOTAL				\$474.00
Miscellaneous Cost				
		Cost	Required	
OSHA 10 Training		\$ 25.00	x	
TOTAL				\$25.00
2nd Trimester				
Tuition		Cost		Total
Tuition*		\$	1,139.00	
Technology Access Fee*		\$	67.00	
Student Activity Fee*		\$	10.00	
TOTAL				\$1,216.00
3rd Trimester				
Tuition		Cost		Total
Tuition*		\$	1,139.00	
Technology Access Fee*		\$	67.00	
Student Activity Fee*		\$	10.00	
TOTAL				\$1,216.00
Supplies				
		Needed By	Cost	Required

All Costs are Estimated and Subject to Change Without Notice Revised: 12/8/2016

*Denotes costs that can be covered by TN Promise and TN Reconnect

Flashdrive	First day of class	\$ 10.00	x	
3 Ring Binder	First day of class	\$ 3.00	x	
25 Sheet Protectors	First day of class	\$ 5.00	x	
TOTAL				\$ 18.00

4th Trimester

Tuition	Cost	Total
Tuition*	\$ 1,139.00	
Technology Access Fee*	\$ 67.00	
Student Activity Fee*	\$ 10.00	
TOTAL		\$1,216.00

Miscellaneous Cost	Cost	Required	
Graduation Supplies	\$ 40.00	x	
TOTAL			\$ 40.00
TOTAL PROGRAM COST			\$5,678.00

TCAT - Knoxville Certification of Immunization Measles, Mumps, and Rubella (MMR)

Student's name: _____ Program of Enrollment: _____

PART I (TO BE COMPLETED BY STUDENT)

Proof of MMR immunization is not required for the following reason:

- I graduated from a Tennessee public or private high school in 1999 or after. (transcript attached)
- I attended a Tennessee public or private high school in 2001 or after. (transcript attached)
- I was born prior to January 1, 1957. (copy of photo ID or birth certificate attached)
- I am active duty or former military personnel. (copy of DD214 or active military ID attached)

IF THE ABOVE IS CHECKED, PLEASE SIGN BELOW.

PART II (TO BE COMPLETED BY STUDENT)

Proof of MMR immunization is not required for the following reason:

- I refuse immunization because of religious doctrine. (Reason affirmed under the penalties of perjury. Please attach statement.)

IF THE ABOVE IS CHECKED, PLEASE SIGN BELOW.

PART III—MMR (TO BE COMPLETED BY PHYSICIAN)

Please circle the number that applies to this patient:

1. Patient has received two doses of measles vaccination since the age of 12 months:

Month/year _____ Month/year _____

2. Vaccination is medically contraindicated because of pregnancy, allergy to vaccine, etc. (Please list reasons.)

3. Patient had disease, as confirmed by medical record:

Month/year _____

4. Patient is immune to disease, as confirmed by laboratory.

Comment _____

ATTEST

(Must be signed by an M.D. or D.O.)

Name of physician (Please print) _____

Office telephone _____

Physician's signature _____ Date _____

Student's signature _____ Date _____

TCAT - Knoxville Certification of Immunization Varicella (Chicken Pox)

Student's name: _____ Program of Enrollment: _____

PART I (TO BE COMPLETED BY STUDENT)

Proof of varicella (chicken pox) immunization is not required for the following reason:

- I attended a Tennessee public high school between 1999 and May 2016. **(Must provide proof of second varicella vaccine dose from your physician office.)** (transcript attached)
- I was born prior to January 1, 1980. (copy of photo ID or birth certificate attached)
- I am active duty or former military personnel. (copy of DD214 attached)

IF THE ABOVE IS CHECKED, PLEASE SIGN BELOW.

PART II (TO BE COMPLETED BY STUDENT)

Proof of varicella (chicken pox) immunization is not required for the following reason:

- I refuse immunization because of religious doctrine. (Reason affirmed under the penalties of perjury. Please attach statement.)

IF THE ABOVE IS CHECKED, PLEASE SIGN BELOW.

PART III—VARICELLA (TO BE COMPLETED BY PHYSICIAN)

Please circle the number that applies to this patient:

1. Patient has received two doses of varicella (chicken pox) vaccination since the age of 12 months:
Month/year _____ Month/year _____
2. Vaccination is medically contraindicated because of pregnancy, allergy to vaccine, etc. (Please list reasons.)

3. Patient had disease, as confirmed by medical record:
Month/year _____
4. Patient is immune to disease, as confirmed by laboratory.
Comment _____

ATTEST

(Must be signed by an M.D. or D.O.)

Name of physician (Please print) _____

Office telephone _____

Physician's signature _____ Date _____

Student's signature _____ Date _____



Application for Enrollment

The information is for Office use only:

ADMISSIONS REQUIREMENTS

- FAFSA I will not be filing financial aid. I will be paying for my education. Students Initials: _____
- Immunizations Education Transcripts

SPECIAL ADMISSIONS REQUIREMENTS

Cosmetology:

- Photo Proof of Age Copy of SS Card RT/LT Handed Manicuring Only

Dental Assisting, Medical Assisting, and Surgical Technology

Compass required scores: Math 30 and Reading 70

- COMPASS or ACT – Scores: _____ Math _____ Reading (Date: _____)
- CPR Documentation (BLS for Healthcare Providers)

Practical Nursing:

Compass required scores: Math 50 and Reading 80

- Notarized Declaration of Citizenship Copy of ID Used to Declare Citizenship
- CPR Documentation (BLS for Healthcare Providers)
- COMPASS or ACT – Scores: _____ Math _____ Reading (Date: _____)

Truck Driving:

- MVR DOT Physical Valid Driver's License
- U.S. Citizenship / Residency

Staff Signature: _____

Date: _____