

www.tcatknoxville.edu



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

Ship 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.



Machine Tool Technology

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	х	
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	х	
Safety Glasses	First day of class	\$	10.00	х	
TOTAL	Thist day of class	Y	10.00	^	\$257.00
TOTAL					Ψ237.00
Book & Tool Kit	ISBN		Cost	Required	
Elementary Blueprint Reading for Machinists, 5th edition	9781401862565	\$	159.00	х	
Machining Fundamentals, 9th Ed.	9781619602090	\$		X	
Machinist Ready Reference , 10th edition	9780970339850	\$		x	
Machining Fundamentals Workbook, 9th Ed.	9781619602144	\$		x	
Machinist Calc Pro 2 Calculator	no isbn	۶ \$			
TCAT Machine Shop Tool Kit Includes the below items				Х	
	no isbn	\$	64.00		
Thread Gauge (Included in Kit)				Х	
Machinist Rule (Included in Kit)				Х	
Pocket Scribe (Included in Kit)				Х	
Center Drill #4 (Included in Kit)				Х	
Center Drill #5 (Included in Kit)				Х	
2 Tool Blanks (Included in Kit)				Х	
TOTAL					\$474.00
Miscelleanous Cost	_		Cost	Required	_
OSHA 10 Training		\$	25.00	х	
TOTAL		Υ.	25.55		\$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
2.17					
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	
- apprice-				neganea	

Flashdrive	First day of class	\$ 10.00	Х		
3 Ring Binder	First day of class	\$ 3.00	х		
25 Sheet Protectors	First day of class	\$ 5.00	х		
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
Miscelleanous Cost		Cost	Required		
Graduation Supplies		\$ 40.00	х		
TOTAL				\$	40.00
TOTAL PROGRAM COST				\$5	,678.00

Measles, Mumps, and Rubella (MMR)

TCAT - Knoxville Certification of Immunization

Student's name:	Program of Enrollment:
PART I (TO BE COMPLETED BY STU	DENT)
Proof of MMR immunization is not re	•
□ I attended a Tennessee public or □ I was born prior to January 1, 195 □ I am active duty or former militar	private high school in 1999 or after. (transcript attached) private high school in 2001 or after. (transcript attached) 57. (copy of photo ID or birth certificate attached) ry personnel. (copy of DD214 or active military ID attached)
IF THE	ABOVE IS CHECKED, PLEASE SIGN BELOW.
PART II (TO BE COMPLETED BY STU Proof of MMR immunization is not re	•
 I refuse immunization because o perjury. Please attach statement 	of religious doctrine. (Reason affirmed under the penalties of t.)
IF THE .	ABOVE IS CHECKED, PLEASE SIGN BELOW.
PART III—MMR (TO BE COMPLETED BY PH Please circle the number that applies to th	
	les vaccination since the age of 12 months: Month/year
2. Vaccination is medically contraindicated	because of pregnancy, allergy to vaccine, etc. (Please list reasons.)
3. Patient had disease, as confirmed by me Month/year	
4. Patient is immune to disease, as confirm Comment	
,	ATTEST (Must be signed by an M.D. or D.O.)
Name of physician (Please print)	
Office telephone	
	Date
Student's signature	Date

Revised: September 4, 2014

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 f	or the following reason:
 I attended a Tennessee public high school between 1999 second varicella vaccine dose from your physician office 	
□ I was born prior to January 1, 1980. (copy of photo ID or b	•
☐ I am active duty or former military personnel. (copy of DI	
IF THE ABOVE IS CHECKED, PLEASE SIG	GN BELOW.
PART II (TO BE COMPLETED BY STUDENT)	
Proof of varicella (chicken pox) immunization is not required f	or the following reason:
□ I refuse immunization because of religious doctrine. (Reas	son affirmed under the populties of
perjury. Please attach statement.)	son annined under the penalties of
IF THE ABOVE IS CHECKED, PLEASE SIG	GN BELOW.
PART III—VARICELLA (TO BE COMPLETED BY PHYSICIAN) Please circle the number that applies to this patient:	
riedse circle the number that applies to this patient.	
1. Patient has received two doses of varicella (chicken pox) vaccinati	on since the age of 12 months:
Month/year Month/	year
2. Vaccination is medically contraindicated because of pregnancy, al	lergy to vaccine, etc. (Please list reasons.)
3. Patient had disease, as confirmed by medical record:	
Month/year	
4. Detient is immune to disease as confirmed by laboratory.	
4. Patient is immune to disease, as confirmed by laboratory. Comment	
ATTEST	
(Must be signed by an M.D. o	
Name of physician (Please print)	
Office telephone	
Physician's signature	Date
Student's signature	Date

Revised: September 4, 2014



ENROLLMENT APPLICATION

Applicants must complete every item on this form, sign and date and return it to the College.

	Full Legal Name						
	Last	First		Middle			
	Address		City				
	County	State Zip	Email	Address			
	- '-	/		Gender: M F			
o	Social Security	Date of Birth	Age				
Personal Information	Marital Status:MarriedSingle Preferred Phone Number:						
nal In	Race: Do you consider yourself Select one or more of the follow	·		No			
ırso		ativeNative Hawaiia					
Pe	Asian	White					
	Black or African American						
	Citizenship status:US Citize	en or US National US Du	al Citizen US Perm	nanent Resident or RefugeeOther			
	US Forces Status:Currently ServingPreviously ServingCurrent DependentN/A						
	ALL MALES 18 OR OLDER MUST be registered with Selective Service. Have you registered for Selective Service? Not required to registeredRegisteredRequired to register, but not registered						
>	Education (insert highest level	of education completed):					
Prior Education/ Training	Name of last high school attended:						
r Educati Training	High school graduation date (mm/yyyy): GED Diploma Date						
Prior	Are you seeking credit for pr	ior education, training or w	ork experience?	_YesNo			
٤	Please review the campuses website and provide the program name choice for career training (Example: Administration Office Technology)						
Program	When will you be available to e		pringSummer				
							

state civil rights law with respect to all employment, programs and activities sponsored by the TCATs.



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 Healhcare 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 Healhcare Providers)
COMPASS or ACT – Scores: Math Reading (Date:)
Truck Driving: MVR DOT Physical Valid Driver's License U.S. Citizenship / Residency
Staff Signature:
Date:

Revised: 6/29/2016