



Industrial Maintenance/Mechatronics

The Industrial Maintenance/Mechatronics Technology Program (IMM) of TCAT Knoxville is designed and managed to produce highly skilled individuals in the areas of mechanical and electrical industrial machinery repair. The program consists of Mechanical Training, to include all types of power transmission techniques, belt drives systems, chain drives, alignment methods, also coupling methods. Also they are trained in pneumatic and hydraulic symbology, operation and application. Continuing their training in basic electrical motor control, sensors, motor drives, AC and DC motor theory and operation and troubleshooting. The program ends with an extensive training period of PLC, Programmable Logic Controller, training, to include both programming and troubleshooting. As part of the IMM program training students are exposed to a good deal of math also.

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

Curriculum/Courses	Completion Award	Required Hours
IMM 0001 Worker Characteristic	Advanced Programmable Logic Controllers & Robotics LCs-Robotics	Certificate 432
IMM 1010 Tech Foundations		
IMM 1020 Orientation and Safety	Industrial Maintenance Helper	Certificate 864
IMM 1030 Mechanical Maintenance		
IMM 1040 Hydraulics	Industrial Maintenance Technician	Diploma 1728
IMM 1050 Pneumatics		
IMM 0002 Worker Characteristic		
IMM 2010 Basic Electricity		
IMM 2020 Electric Motor Control		
IMM 2030 Intro to PLCS		
IMM 0004 Worker Characteristic		
IMM 3010 PLCS 2		
IMM 0004 Worker Characteristic		
IMM 4010 IM-2300 Intro to Robotics		
IMM 4020 IM-1800 Adv PLCS 2 & Robotics		

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>

Typical Job Opportunities

- Industrial Maintenance
- Mechanical Maintenance
- Electrical Maintenance



Industrial Maintenance/Mechatronics

Book, Tool, and Supply List

1st Trimester				
Tuition		Cost	Total	
Tuition*		\$1,169.00		
Technology Access Fee*		\$ 67.00		
Student Activity Fee*		\$ 10.00		
OSHA 10 Training		\$ 25.00		
TOTAL				\$1,271.00
Books				
ISBN	Cost	Required		
Industrial Mechanics, 4th edition	\$ 147.00	x		
Industrial Mechanics workbook, 4th edition	\$ 40.00	x		
Electrical Motor Controls (w/CD), 5th Ed.	\$ 146.00	x		
Electrical Motor Controls for Integrated Systems WB	\$ 37.00	x		
Programmable Logic Controllers (ACT MAN)	\$ 98.00	x		
Programmable Logic Controllers (w/out Logixpro Lab & CD)	\$ 181.00	x		
TOTAL				\$649.00
Supplies				
Needed By	Cost	Required		
Denim Jeans	\$ 35.00	x		
3 Black Short Sleeve Work Shirts (collared, polo, or tshirt)	\$ 30.00	x		
Black or Brown Belt	\$ 20.00	x		
Steel Toe Work Boots	\$ 140.00	x		
Safety Glasses	\$ 10.00	x		
TOTAL				\$235.00
Tools				
Needed By	Cost	Required		
Tool Box or Tool Pouch		x		
Combination Insulated Screwdriver Set		x		
Wire Strippers		x		
Needle Nose Pliers		x		
2 Hex Head Key Sets (1 standard and 1 metric)		x		
6" Steel Ruler with Sliding Bar		x		
Digital Multimeter Auto Ranging		x		
Clamp-on Amp Meter		x		
Electrical Crimping Pliers		x		
TOTAL				\$495.00
2nd Trimester				
Tuition		Cost	Total	
Tuition*		\$1,169.00		
Technology Access Fee*		\$ 67.00		
Student Activity Fee*		\$ 10.00		
TOTAL				\$1,246.00

All Costs are Estimated and Subject to Change Without Notice Revised: 8/24/2017

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

3rd Trimester			
Tuition	Cost		Total
Tuition*	\$1,169.00		
Technology Access Fee*	\$ 67.00		
Student Activity Fee*	\$ 10.00		
TOTAL			\$1,246.00

4th Trimester			
Tuition	Cost		Total
Tuition*	\$1,169.00		
Technology Access Fee*	\$ 67.00		
Student Activity Fee*	\$ 10.00		
TOTAL			\$1,246.00

Miscellaneous Cost	Cost	Required	
Graduation Supplies	\$ 40.00	x	
TOTAL			\$40.00
TOTAL PROGRAM COST			\$6,428.00

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