

## TENNESSEE COLLEGE OF APPLIED TECHNOLOGY PULASKI

1233 East College Street, Pulaski, TN 38478 931-424-4014 www.tcatpulaski.edu

Career Training **Administrative Office** Technology Advanced Manufacturing Education **Building Construction** Technology **CNC** Machining Technology **Computer Operating Systems** and Network Technology **Electrical and Plumbing Construction Technology** HVAC/R **Industrial Electricity Industrial Maintenance** Technology Patient Care Technology/ **Medical Assisting** Pharmacy Technology **Practical Nursing Residential/Commercial** Wiring and Plumbing Welding Technology

Campus Locations Lawrenceburg Instructional Service Center North Lawrence Instructional Service Center Northfield Instructional Service Center South Lawrence Instructional Service Center

# ADVANCED MANUFACTURING EDUCATION

The mission of the Advanced Manufacturing Education Program is to increase the number of available skilled workers for existing and emerging manufacturing jobs, enhance worker skills, and knowledge in manufacturing technologies and processes, help improve the productivity of the regions manufacturing industry, increase manufacturer's global competitive advantage, and provide manufacturing related technical assistance to local business and industry. This program offers three career paths: Robotics Automation, Programmable Logic Controls (PLC) Automation, and Plastics Injection Molding. Training in these areas are related to the high tech manufacturing industry of today's economy. Completion of the program yields an Engineering Technician Diploma.

#### **Employment Opportunities:**

- Manufacturing Industries
- Injection Molding Industries
- Robotic Industries

Program Instructor: Dalton Pelfrey dalton.pelfrey@tcatpulaski.edu 931-424-2416

ENROLLMENT INFORMATION	
Classes Offered:	Full-Time: Monday - Friday 8 to 2:30 Part-Time: Mon - Fri 8 to 11 or 11:30 to 2:30
Program Length:	1,728 Hours (4 trimesters)
Program Location:	Pulaski Main Campus 1233 East College Street, Pulaski, TN 38478
Program Cost including Tuition, Fees, plus Books/Supplies	\$1,312 per trimester x 4 trimesters =\$5,248 \$1,822 Books/Supplies; Total Cost \$7,070* *These costs are subject to change.
Requirements:	Complete the Admissions Process Checklist
Financial Aid:	Available to those who qualify
	out our graduation rates, the median debt of students m, and other important information, please visit our

Tennessee College of Applied Technology-Pulaski does not discriminate on the basis of race, color, religion, creed, ethnicity or national origin, sex, disability, age status as a protected veteran or any other class protected by Federal or State laws and regulations and by Tennessee Board of Regents policies with respect to employment, programs, and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Mike Whitehead, President; mike.whitehead@tcatpulaski.edu; 931-424-2420. The TCAT-Pulaski policy on non-discrimination can be found at ww.tcatpulaski.edu.

website at www.tcatpulaski.edu

# **AME Course Outline**

First Trimester	
Worker Characteristics	6 Hours
Orientation, Safety, Alcohol Ed and Haven Training	6 Hours
Technology Foundations	24 Hours
CERTIFIED PRODUCTION TECHNICIAN (CPT) Module	
Safety (CPT Module)	45 Hours
Quality Practices and Measurements (CPT Module)	45 Hours
Maintenance Awareness (CPT Module)	45 Hours
Manufacturing Process & Production (CPT Module)	45 Hours
Root Cause Analysis	45 Hours
6 Sigma Yellow Belt/Green Belt	45 Hours
CAD for 3D Printing	72 Hours
C.M.M. Coordinate Measuring Machine	54 Hours
Quality Assurance Technician Certificate	432 Hours
Second Trimester	
Worker Characteristics	6 Hours
Basic Mechanical Theory and Lab	42 Hours
Basic Hydraulics Theory and Lab	72 Hours
Basic Pneumatics Theory and Lab	46 Hours
Introduction to Electrical Motor Controls	18 Hours
Advanced Hydraulics and Zero Pressure Testing	80 Hours
3D Printing & Scanning	94 Hours
Introduction to Manual Machining Mill and Lathe	74 Hours
Manufacturing Technician Certificate	864 Hours
ELECTIVES Third Trimester Plastics	
Worker Characteristics	6 Hours
Injection Molding Theory and Lab I, Routsis Training	123 Hours
Injection Molding Theory and Lab II, Routsis Training	123 Hours
Advanced Molding Theory and Lab, Routsis Training	120 Hours
Internship/Final Project	60 Hours
Plastics Engineering Technician Certificate	1296 Hours
ELECTIVES Fourth Trimester Plastics	
Worker Characteristics	6 Hours
Tool and Die	102 Hours
PLC Theory and Lab I	108 Hours
PLC Theory and Lab II	108 Hours
Robotic Maintenance	108 Hours
Master Plastics Engineering Technician Diploma	1728 Hours

please see curriculum continued on page 3

Accredited Member Commission of the Council on Occupational Education 7840 Roswell Road, Building 300 Suite 325 Atlanta, GA 30350 Phone: (770) 396-3898 \* (800) 917-2081

## **AME Course Outline**

ELECTIVES Fourth Trimester PLC	
Worker Characteristics	6 Hours
Robotic Theory and Lab I	108 Hours
Robotic Theory and Lab II	150 Hours
Robotic Maintenance	108 Hours
Robotic Project	60 Hours
Master PLC Automation Engineering Technician Diploma	1728 Hours

ELECTIVES Third Trimester Robotics	
Worker Characteristics	6 Hours
Robotic Theory and Lab I	108 Hours
Robotic Theory and Lab II	150 Hours
PLC Theory and Lab I	108 Hours
Internship/Final Project	60 Hours
Robotic Automation Engineering Certificate	1296 Hours
ELECTIVES Fourth Trimester Robotic Automation Engineering	
Worker Characteristics	6 Hours
Advanced Robotic Theory & Lab	140 Hours
Robotic Maintenance	108 Hours
Advanced Robotic Programming and Troubleshooting	178 Hours
Master Robotic Automation Engineering Technician Diploma	1728 Hours

ELECTIVES Third Trimester PLC	
Worker Characteristics	6 Hours
PLC Theory and Lab I	108 Hours
PLC Theory and Lab II	108 Hours
Advanced PLC Theory and Lab	150 Hours
Internship/Final Project	60 Hours
PLC Automation Engineering Technician Certificate	1296 Hours

For More Information Please Contact Student Services Department P.O. Box 614, Pulaski, TN 38478 931-424-4014 Accredited Member Commission of the Council on Occupational Education 7840 Roswell Road, Building 300 Suite 325 Atlanta, GA 30350 Phone: (770) 396-3898 \* (800) 917-2081