

Career Training

Administrative Office

Building Construction

Advanced Manufacturing

CNC Machining Technology

Computer Operating Systems

and Network Technology

Construction Technology

Electrical and Plumbing

Industrial Electricity Industrial Maintenance

Pharmacy Technician Practical Nursing

Welding Technology

Residential/Commercial

Wiring and Plumbing

Technology

Technology

Education

Technology

HVAC/R

TENNESSEE COLLEGE OF APPLIED TECHNOLOGY PULASKI

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

> 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

| 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 | \$1,246 per trimester x 4 trimesters \$1,500 Books/Supplies; Total Cost \$6,484* *These costs are subject to change. | |
| Requirements: | Complete the Admissions Process Checklist | |
| Financial Aid: | Available to those who qualify | |
| For more information students who complete | about our graduation rates, the median debt of ed the program, and other important information, | |

please visit our website at www.tcatpulaski.edu

Program Instructor:

Dino Owen

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

Campus Locations



The Tennessee College of Applied Technology-Pulaski does not discriminate on the basis of race, color, national origin, sex, veteran status, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Mike Whitehead <u>mike.whitehead@tcatpulaski.edu</u> 931-424-2420.

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 |
| SPC | 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

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AME Course Outline

| ELECTIVES Third Trimester DLC | |
|---|------------|
| | |
| 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 |
| 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 |

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