INDUSTRIAL MAINTENANCE TECHNOLOGY

The mission of the Industrial Maintenance Technology Program is to train students with the broad range of skills to compete in today’s technological environment as a multi-craft maintenance technician. Trainees learn the fundamentals of electricity, welding, and mechanical. Students are being trained for work with electric motor control, automated machine control, circuits, conveyors, pumps, pneumatic and hydraulic systems, test equipment, production equipment (electrical, electronic, and mechanical), welding, HVAC/R, plastics and injection molding, programmable controllers and automation. In the last phase of the course, students combine all their newly acquired skills in overall systematic troubleshooting and interfacing systems to qualify for an Industrial Maintenance Technician Diploma.

Employment Opportunities:
- Manufacturing Industries
- Industrial Maintenance
- Welding Industries

Program Instructors:
- Electrician Helper & PLCs - Chris Adcock
  chris.adcock@tcatpulaski.edu
  931-424-2418
- Gas Metal Arc Welding - Josh Hughes
- Heating & AC - Chris Perkins
- Robotics & Injection Molding - Dalton Palfrey

ENROLLMENT INFORMATION

<table>
<thead>
<tr>
<th>Classes Offered:</th>
<th>Full-Time: Monday - Friday 8 to 2:30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Part-Time: Mon - Fri 8 to 11 or 11:30 to 2:30</td>
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<tr>
<td>Program Length:</td>
<td>1728 Hours (4 Trimesters)</td>
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<tr>
<td>Program Location:</td>
<td>Pulaski Main Campus</td>
</tr>
<tr>
<td></td>
<td>1233 East College St., Pulaski, TN 38478</td>
</tr>
<tr>
<td>Program Cost including Tuition, Fees plus Books/Supplies</td>
<td>$1,336 per trimester x 4 trimesters = 5,344</td>
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<tr>
<td></td>
<td>$2,695.44 Book/Supplies; Total Cost $8,039.44*</td>
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<td></td>
<td>*These costs are subject to change</td>
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<tr>
<td>Requirements:</td>
<td>Complete the Admissions Process Checklist</td>
</tr>
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<td>Financial Aid:</td>
<td>Available to those who qualify</td>
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</table>

Tennessee College of Applied Technology-Pulaski does not discriminate on the basis of race, color, religion, creed, ethnic 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 nondiscrimination policies: Christa Williams, VP Student Services; christa.williams@tcatpulaski.edu; 931-424-2404; P.O. Box 614; Pulaski, TN 38478.

10/2023
## IMT Day Course Outline

### First Trimester (Module I)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Worker Characteristics</td>
<td>6</td>
</tr>
<tr>
<td>Orientation Safety Alcohol Edu &amp; Haven Training</td>
<td>6</td>
</tr>
<tr>
<td>Technology Foundations</td>
<td>24</td>
</tr>
<tr>
<td>Electrical Safety</td>
<td>20</td>
</tr>
<tr>
<td>Related Math for Electricians</td>
<td>60</td>
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<tr>
<td>Electrical Principles</td>
<td>134</td>
</tr>
<tr>
<td>Digital Multimeter Principles</td>
<td>60</td>
</tr>
<tr>
<td>Printreading for Electro-Mechanical Systems</td>
<td>122</td>
</tr>
</tbody>
</table>

**First Trimester (Module I) Electrician Helper Certificate (C1) 432 Hours**

### Second Trimester (Module II)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worker Characteristics</td>
<td>6</td>
</tr>
<tr>
<td>Introduction to Robotics</td>
<td>44</td>
</tr>
<tr>
<td>Electrical Motor Control Systems</td>
<td>194</td>
</tr>
<tr>
<td>Program Logic Control Concepts</td>
<td>188</td>
</tr>
</tbody>
</table>

**Second Trimester (Module II) Programmable Logic Controller Helper Certificate (C2) 864 Hours**

### Third Trimester (Module III)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Safety</td>
<td>18</td>
</tr>
<tr>
<td>Basic Industrial Mechanics</td>
<td>30</td>
</tr>
<tr>
<td>Basic Industrial Hydraulics</td>
<td>30</td>
</tr>
<tr>
<td>Basic Industrial Pneumatics</td>
<td>18</td>
</tr>
<tr>
<td>Introduction to Electrical Motor Control</td>
<td>18</td>
</tr>
<tr>
<td>Machining Operations (Lathe and Mill)</td>
<td>42</td>
</tr>
<tr>
<td>Troubleshooting Mechanical Systems</td>
<td>60</td>
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</tbody>
</table>

**Third Trimester (Module III) Mechanical Technician Helper Certificate (C3) 216 Hours**

**Completion of modules I, II, and III = Electro-Mechanical Maintenance Diploma (1296 Hours) 1296 Hours**
# IMT Day Course Outline

## Fourth Trimester (Module IV)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Worker Characteristics</td>
<td>6</td>
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<tr>
<td>OSHA 10</td>
<td>10</td>
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<tr>
<td>Safety</td>
<td>24</td>
</tr>
<tr>
<td>Refrigeration Fundamentals</td>
<td>100</td>
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<tr>
<td>Tools Equipment and Shop Practices</td>
<td>30</td>
</tr>
<tr>
<td>Electricity and Controls</td>
<td>130</td>
</tr>
<tr>
<td>Installation</td>
<td>76</td>
</tr>
<tr>
<td>Green Awareness</td>
<td>14</td>
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<tr>
<td>Employment Readiness Exam</td>
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<tr>
<td>EPA</td>
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**Industrial Maintenance Technician/HVAC Diploma (DPI)**  
1728 Hours

## Fourth Trimester (Module IV)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Worker Characteristics</td>
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<tr>
<td>Robotic Maintenance</td>
<td>132</td>
</tr>
<tr>
<td>Robotic Theory and Lab I</td>
<td>120</td>
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<tr>
<td>Robotic Theory and Lab II</td>
<td>174</td>
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</table>

**Industrial Maintenance Technician/Robotics Diploma (DPII)**  
1728 Hours

## Fourth Trimester (Module IV)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Worker Characteristics</td>
<td>6</td>
</tr>
<tr>
<td>Injection Molding Machine Safety</td>
<td>20</td>
</tr>
<tr>
<td>Basic Operation of Injection Molding</td>
<td>70</td>
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<tr>
<td>Types of Injection Molding Machine Power</td>
<td>75</td>
</tr>
<tr>
<td>Installation of the Injection Molding Machine</td>
<td>40</td>
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<tr>
<td>Preventive Maintenance Procedures</td>
<td>79</td>
</tr>
<tr>
<td>Injection Molding Machine Repair Procedures</td>
<td>82</td>
</tr>
<tr>
<td>Auxiliary Equipment Maintenance and Repair</td>
<td>60</td>
</tr>
</tbody>
</table>

**Industrial Maintenance Technician/Injection Molding Diploma (DPIII)**  
1728 Hours

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For More Information Please Contact  
Student Services Department  
P.O. Box 614, Pulaski, TN 38478  
931-424-4014

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10/2023