

# ELECTRICAL MAINTENANCE TECHNICIAN, CERTIFICATE - ELM7

This certificate is designed for individuals seeking a certificate that primarily focuses on electrical maintenance, or a short-term refresher training. All courses within this certificate will be awarded for credit toward an Associate in Applied Science degree with a major in Mechatronics Technology.

## Requirements

Courses	Course Title	Credit Hours
<b>Required Course Information</b>		
EEM 117 or EET 111	AC/DC Circuits I DC Circuits	4
EEM 118 or EET 112	AC/DC Circuits II AC Circuits	4
EEM 140	National Electrical Code	3
EEM 151 or EET 231	Motor Controls I Industrial Electronics	4
EEM 200 or EET 131	Semiconductor Devices Active Devices	4
EEM 251 or EET 235	Programmable Controllers Programmable Controllers	3
IMT 112	Hand Tool Operations	3
Subtotal		25
<b>Total Hours</b>		<b>25</b>

## Graduation Plan

### Fall Start

Course	Title	Hours
<b>First Year</b>		
<b>Fall Semester</b>		
EEM 117 or EET 111	AC/DC Circuits I or DC Circuits	4
IMT 112	Hand Tool Operations	3
EEM 251 or EET 235	Programmable Controllers or Programmable Controllers	3
	<b>Hours</b>	<b>10</b>
<b>Spring Semester</b>		
EEM 118 or EET 112	AC/DC Circuits II or AC Circuits	4
EEM 151 or EET 231	Motor Controls I or Industrial Electronics	4
	<b>Hours</b>	<b>8</b>

### Summer Semester

EEM 200 or EET 131	Semiconductor Devices or Active Devices	4
EEM 140	National Electrical Code	3
	<b>Hours</b>	<b>7</b>
	<b>Total Hours</b>	<b>25</b>

## Application and Advising

If you are ready to start your education, there are a few simple steps involved in enrolling at Piedmont Technical College.

Get Started Today (<https://www.ptc.edu/admissions/new-students/>)

## Advising Information

The following information provides a guide for advisors who are helping students enroll in this program.

### Program Notes

This certificate program requires three years of industrial work experience for enrollment.

This program requires EEM 117. EEM 117 (or its listed alternative) MUST be taken in the first semester.

## Program Student Learning Outcomes

### Purpose Statement

The purpose of the Electrical Maintenance Technician certificate is to allow technicians with previous experience to return and obtain a credential or certification for the purpose of promotion and/or salary raises.

### Program Student Learning Outcomes

1. Demonstrate a logical sequence for isolating problems within a Mechatronics process.
2. Analyze a process control system operation and select the appropriate sensing equipment for that operation.
3. Operate and adjust robots and automated systems equipment.
4. Analyze the operating difficulties of an automated system and perform the corrective actions needed.
5. Demonstrate the correct procedures in the breakdown, inspection, and repair of hydraulic and pneumatic equipment.
6. Test, analyze, and troubleshoot an industrial machine or process using a programmable logic controller (PLC).
7. Demonstrate an understanding of the use of PLC software and interface applications.