



## **Industrial Maintenance Technician C.A.**

Career Community: Electrical and Manufacturing

Curriculum Code: 1484

Effective: Fall 2025 – Summer 2030

### **Purpose of the Major**

This certificate is designed for an apprentice, pre-apprentice, or person interested in advancing his/her skill set in the industrial maintenance trade. Ideally, this curriculum should be taken concurrently with an industry-based work experience or apprenticeship or in preparation for an apprenticeship in industrial or machine maintenance and repair.

### **Milestone**

Completion of WELD 103 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in this course is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in this course.

### **Additional Information**

A student must earn a minimum grade of 2.0 in all courses.

If students have already completed DCTM 102 with a grade of 2.0 or higher, that will satisfy the TECH 102 requirement. DCTM 102 will fulfill the prerequisite for the ELTE and METS courses.

### **Contact Information**

For further information, including career options, course substitutions and waivers, etc., contact the Trades Technology Program, West Campus Building, Room M103, telephone number 517-483-5338, email [manufacturing@lcc.edu](mailto:manufacturing@lcc.edu) or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

### **Major Required Courses**

Course Code	Course Title	Credit / Billing Hours
METD 150	Industrial Blueprint Reading	3 / 3
METS 130	Industrial Hydraulics	4 / 6
METS 140	Rigging	3 / 4.5
TECH 102	General Industry Safety	2 / 3
WELD 103	Combination Welding	4 / 6

### **Major Required Courses, Limited Choice – *Select a minimum of four courses, sixteen credits***

Course Code	Course Title	Credit / Billing Hours
ELTE 110	Practical Electricity	4 / 6
ELTE 131	Machine Controls I	4 / 5
MATH 115	Technical Mathematics	4 / 4

Course Code	Course Title	Credit / Billing Hours
METM 108	Machine Tool Operations	4 / 6
METM 112	Introduction to CNC Machining	4 / 6
METM 190	Metallurgy and Heat Treatment	4 / 6
METS 110	Mechanical Power Transmissions	4 / 6
METS 120	Industrial Pneumatics	4 / 6
METS 210	Lubrication and Bearings	4 / 6
WELD 105	Advanced ARC Welding	4 / 6
WELD 111	Gas Tungsten ARC Welding	4 / 6

### Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 30-credit minimum required for a Certificate of Achievement may select any course(s) needed to reach 30 credits, except those courses noted in number 7 in the [Institutional Requirements for Certificates of Achievement](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

### Minimum Total Credit Hours

32 credits / 43.5 billing hours

### Recommended Course Sequence

Semester I
METD 150
TECH 102
Limited Choice

Semester II
METS 130
METS 140
WELD 103 – Milestone course

Semester III
Limited Choice
Limited Choice
Limited Choice

*LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted.*