



## **Mechanical Systems C.A.**

Career Community: Electrical and Manufacturing

Curriculum Code: 0147

Effective: Fall 2024 – Summer 2029

### **Description**

This program provides technical knowledge and skills in the adjustment, maintenance, part replacement, and repair of tools, equipment and machines. It prepares an individual for an entry-level position.

### **Milestone**

Completion of METD 150 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, ELTE 102, HVAC 102, METS 102, or WELD 102 with a grade of 2.0 or higher, that will satisfy the TECH 102 requirement. Any of these courses will fulfill the prerequisite for the ELTE and METS courses.

Students may substitute ELTE 129 and ELTE 130 for ELTE 131.

### **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.

### **Program of Study Required Courses**

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
METD 150	Industrial Blueprint Reading	3 / 3
METS 110	Mechanical Power Transmissions	4 / 6
METS 120	Industrial Pneumatics	4 / 6
METS 130	Industrial Hydraulics	4 / 6
METS 160	Introduction to Robotics	3 / 4.5
TECH 102	General Industry Safety	2 / 3

## 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
ELTE 110
MATH 115
METD 150 – Milestone course
METS 120
TECH 102

Semester II
ELTE 131
METS 110
METS 130
METS 160

*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 title changes, and make course changes as needed, without prior notice.*