



## **Mechanical Systems A.A.S.**

Curriculum Code: 0173

Effective: Fall 2021 – Summer 2026

### **Description**

Machine maintenance technicians are involved with the repair, maintenance, and installation of industrial equipment. They repair the machinery of industry, solving mechanical problems. The skills necessary for this type of work are many and varied: critical thinking, problem solving, mechanics, math and physics are but a few. Maintenance technicians also need to know how to diagnose hydraulic problems, perform preventative maintenance procedures, and be able to work well with others. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

### **Additional Information**

Students who have already completed DCTM 102, ELTE 102, HVAC 102 or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for METS 102. Any of these courses may also be used to fulfill the prerequisite for the ELTE and METS courses.

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

### **Contact Information**

Contact the Trades Technology Program at the West Campus Building, Room M103, telephone number 517-483-5338 or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

### **General Education - Applied Degrees, Recommended Courses**

(For the full list of options, see [General Education](#))

- English Composition or Applied English – *Select one*  
ENGL 124, Technical Writing, 3 credits / 3 billing hours
- English Composition (Second Course)/Communications or Applied Communications – *Select one*  
COMM 110, Communication in the Workplace, 3 credits / 3 billing hours
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences – *Select one*  
MGMT 234, Diversity in the Workplace, 3 credits / 3 billing hours
- Mathematics or Applied Mathematics – *Select one*  
MATH 115, Technical Math II, 4 credits / 4 billing hours
- Natural Sciences Lab or Applied Science and Technology Lab – *Select one*  
METM 190, Metallurgy and Heat Treatment, 4 credits / 6 billing hours

## Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
ELTE 108	Practical Electricity I	2 / 3
ELTE 109	Practical Electricity II	2 / 3
ELTE 131	Machine Controls I	4 / 5
METD 150	Industrial Blueprint Reading	3 / 3
METM 108	Machine Tool Operations	4 / 6
METS 102	Industrial/Construction Safety	2 / 3
METS 110	Mechanical Power Transmissions	4 / 6
METS 120	Industrial Pneumatics	4 / 6
METS 130	Industrial Hydraulics	4 / 6
METS 140	Rigging	3 / 4.5
METS 160	Introduction to Robotics	3 / 4.5
METS 210	Lubrication and Bearings	4 / 6
METS 250	Gen. Prevent/Predictive Maint	3 / 4.5
WELD 103	Combination Welding	4 / 6

## Total Credit Hours

63 credits / 85.5 billing hours

## Recommended Course Sequence

Semester I	Semester II
Gen Ed – Mathematics or Applied Mathematics	ELTE 131
ELTE 108 (First 8 weeks)	METS 110
ELTE 109 (Second 8 weeks)	METS 130
METD 150	METS 160
METS 102	
METS 120	

Semester III	Semester IV
Gen Ed – English Composition or Applied English	Gen Ed – English Composition (Second Course)/ Communications and Applied Communications
Gen Ed – Natural Sciences Lab or Applied Science and Technology Lab	Gen Ed – Humanities and Fine Arts or Social Sciences or Applied Social Sciences
METM 108	METS 140
METS 210	METS 250
	WELD 103