



Mechatronics - Multi-Skilled Maintenance Technology A.A.S.

Curriculum Code: 1780

Effective: Fall 2020– Summer 2025

Description

A Mechatronics—Multi-Skilled Maintenance Technician will have knowledge of electrical, electronic, computer, mechanical, fluid power, robotic and programmable logic controller systems. Mechatronics Technicians install, maintain, troubleshoot, test, and repair technologically diverse equipment in industries such as manufacturing, aerospace, automotive, medical, material processing, consumer products, and defense systems.

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.

Contact Information

Visit the Center for Manufacturing Excellence website, or in person at West Campus Building, 5708 Cornerstone Drive, Lansing MI 48917, Room M103, telephone number 517-483-1104 or by [email](mailto:manufacturing@lcc.edu) (manufacturing@lcc.edu).

General Education - Applied Degree, Recommended Choices

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

- English Composition – *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*
PHYS 200, Intro to Applied Physics, 4 credits / 5 billing hours

Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
ELTE 108	Practical Electricity I	2 / 3
ELTE 129	Machine Controls I-A	2 / 2.5
ELTE 130	Machine Controls I-B	2 / 2.5
ELTE 132	Control Panel Assembly	2 / 3
ELTE 260	Programmable Controllers I	4 / 6
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 125	Intro to Hydraulics/ Pneumatics	4 / 6
METS 145	Automated Systems	3 / 4.5
METS 160	Introduction to Robotics	3 / 4.5
METS 250	Gen. Prevent/Predictive Maint	3 / 4.5
METS 260	Advanced Robotics Capstone	3 / 4.5
WELD 108	Welding for Non-Majors	4 / 6

Total Credit Hours

62 credits / 83 billing hours

Recommended Course Sequence

Semester I	Semester II
Gen Ed – Mathematics or Applied Mathematics ELTE 108 (First 8 weeks) ELTE 129 (Second 8 weeks) METD 150 METS 102 METS 160	ELTE 130 (First 8 weeks) ELTE 132 (Second 8 weeks) METM 108 METS 125 METS 145

Semester III	Semester IV
Gen Ed – English Composition Gen Ed – Natural Sciences Lab or Applied Science and Technology Lab ELTE 260 METS 110	Gen Ed – English Composition (Second Course)/ Communications or Applied Communications Gen Ed – Humanities and Fine Arts or Social Sciences or Applied Social Sciences METS 250 WELD 108

Semester V (Summer)
METS 260