

LANSING COMMUNITY COLLEGE

Computer, Engineering/Manufacturing Industrial Technologies

Curriculum Code: 1605
(Effective Fall 2018 –
Summer 2023)

Robotics and Automated Technology C.A. Pathway

A student who completes this certificate will be exposed to the elements of automated systems design and installation needed to obtain employment in various settings including those within the manufacturing and industrial sectors. Students will be able to maintain, troubleshoot, test, and repair modern-day equipment having a technologically diverse design.

For More Information

Contact the Center for Manufacturing Excellence at the West Campus Building, 5708 Cornerstone Drive, Lansing MI 48917, Room M103, telephone number (517) 483-1104 or by email at manufacturing@lcc.edu.

Semester I	Course Title	Prerequisites	Credit/Billing Hours
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Program of Study Requirements

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.

ELTE 108 (1 st 8 weeks)	Practical Electricity I	Minimum 2.0 in (ELTE 102 or DCTM 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	2 / 3
ELTE 109 (2 nd 8 weeks)	Practical Electricity II	Minimum 2.0 in (ELTE 102 or DCTM 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and (ELTE 108 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	2 / 3
MATH 115	Technical Math II	(Minimum 2.0 in MATH 114 within 2 years or Math Level 5 within 2 years) and Reading Level 5	4 / 4
METD 150	Industrial Blueprint Reading	None	3 / 3
METS 102	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3

METS 160	Introduction to Robotics	Minimum 2.0 in (METS 102 or ELTE 102 or DCTM 102 or HVAC 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4.5
Credits			16 / 20.5
Semester II	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
ELTE 131	Machine Controls I	Minimum 2.0 in (ELTE 108 or ELTE 110) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 5
METS 110	Mechanical Power Transmissions	Minimum 2.0 in (METS 102 or DCTM 102 or ELTE 102 or HVAC 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	4 / 6
METS 125	Intro to Hydraulics/Pneumatics	Minimum 2.0 in (METS 102 or ELTE 102 or DCTM 102 or HVAC 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	4 / 6
METS 145	Automated Systems	Minimum 2.0 in (ELTE 109 and (ELTE 130 or ELTE 131 or concurrently) and (METS 125 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4.5
Credits			15 / 21.5
Total Credits			31 / 42