



Robotics and Automated Technology C.A.

Career Community: Electrical and Manufacturing

Curriculum Code: 1605

Effective: Fall 2023 – Summer 2028

Description

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.

Milestone

Completion of ELTE 110 and ELTE 131 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses 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 these courses.

Additional Information

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.

Contact Information

For further information, including career options, course substitutions and waivers, etc., 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](mailto:manufacturing@lcc.edu) (manufacturing@lcc.edu).

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
ELTE 132	Control Panel Assembly	2 / 3
MATH 115	Technical Math II	4 / 4
METD 150	Industrial Blueprint Reading	3 / 3
METM 108	Machine Tool Operations	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
TECH 102	General Industry Safety	2 / 3

Minimum Total Credit Hours

33 credits / 45 billing hours

Recommended Course Sequence

Semester I
ELTE 110 – Milestone course
MATH 115
METD 150
METS 160
TECH 102

Semester II
ELTE 131
ELTE 132 (Second 8 weeks)
METM 108
METS 125
METS 145

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.