



Robotics and Automated Technology C.A.

Career Community: Electrical and Manufacturing

Curriculum Code: 1605

Effective: Fall 2022 – Summer 2027

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 108 and ELTE 129 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

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

Contact 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](mailto:manufacturing@lcc.edu) (manufacturing@lcc.edu).

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
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

31 credits / 42 billing hours

Recommended Course Sequence

Semester I
ELTE 108 (First 8 weeks) – Milestone course
ELTE 129 (Second 8 weeks) – Milestone course
MATH 115
METD 150
METS 160
TECH 102

Semester II
ELTE 130 (First 8 weeks)
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.