

# LANSING COMMUNITY COLLEGE

## CURRICULUM GUIDE

Control Panel Wiring  
Certificate of Completion

Curriculum Code: 1471 (Effective Fall 2014 – Summer 2019)

This certificate is designed to provide students with entry level skills in reading relay ladder logic diagrams and in the layout, mounting and terminating of equipment in control panels used in industry. The program builds a basic foundation in electrical theory, the operating characteristics of electrical controls and the connection and troubleshooting of electric motors. This curriculum would be an excellent choice for students wishing to enter the job market in the panel shop of a system or controls design firm or prepare for an industrial electrical apprenticeship. Most of the course work may be applied toward a Certificate of Achievement and/or an Associate in Applied Science Degree in Electrical Technology.

### PREREQUISITES

Students should see [Course Descriptions](#) for course prerequisite information. See [Academic Assessment and Placement Testing for Student Success](#) for skills assessment and advising information.

### INFORMATION

Contact the Utility & Energy Systems Program, West Campus Building, Room M127, telephone number (517) 483-1570 (Website: [www.lcc.edu/utility/electrical/](http://www.lcc.edu/utility/electrical/)) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

### REQUIREMENTS

| CODE                 | TITLE                                       | TOTAL: 17 CREDITS<br>CREDIT HOURS |
|----------------------|---|-----------------------------------|
| ELTE 102             | Industrial/Construction Safety (See Note 1) | 2                                 |
| ELTE 110             | Practical Electricity (See Note 1)          | 3                                 |
| ELTE 111             | Intro to Industrial Automation              | 4                                 |
| ELTE 131             | Machine Controls I                          | 4                                 |
| ELTE 132             | Control Panel Assembly                      | 2                                 |
| ELTE 150             | Electric Motor Maintenance                  | 2                                 |
| <b>MINIMUM TOTAL</b> |   | <b>17</b>                         |

### NOTES:

1. Students who have already completed DCTM 102, HVAC 102, METS 102 or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for ELTE 102. Any of these courses may also be used to fulfill the prerequisite for ELTE 110.
2. To receive a certificate of completion from Lansing Community College, a student must maintain a grade point average of 2.0 or above in the courses required for the certificate.

### SUGGESTED COURSE SEQUENCE

Students should see course descriptions to find out when departments plan to offer courses. Students who for any reason are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor for help with adjustments.

| I        | II       |
|----------|----------|
| ELTE 102 | ELTE 131 |
| ELTE 110 | ELTE 132 |
| ELTE 111 | ELTE 150 |