# **Automation Certificate**

## **Automation Certificate Requirements**

### 14 Credits

Code	Title	Hours
MTRN 2200	Industrial Wiring for Automated Systems (Prerequisite: MECH 1000)	1
MTRN 2205	Industrial Wiring for Automated Systems Lab	2
MTRN 2300	Introduction to Programmable Logic Controllers (Prerequisite: MECH 1200)	2
MTRN 2305	Introduction to Programmable Logic Controllers Lab	2
MTRN 2350	Advanced PLC Programming and Applications (Prerequisite: MTRN 2300)	2
MTRN 2355	Advanced PLC Programming and Applications Lab	2
MTRN 3360	Industrial Robots (Prerequisite: MTRN 2350)	2
MTRN 3365	Industrial Robots Lab	1

#### **Completion Requirement**

1. Grade C- or higher in each Automation Certificate Requirement course.

#### Automation Certificate Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

- 1. Program Programmable Logic Controllers (PLC) to take data from sensors and control actuators to perform desired tasks.
- 2. Wire and troubleshoot electrical issues on industrial automation equipment.
- 3. Operate and program industrial robotic arms to perform desired tasks.