

# AUTOMATION FUNDAMENTALS CERTIFICATE

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**PROGRAM CODE:** 2C41371

The **Automation Fundamentals Certificate** is designed to provide fundamental hands-on training on automated systems and equipment. Students will study the basic principles, applications, concepts and functions of electrical systems, electrical components, motors, programmable logic controllers, and mechanical components. This certificate requires a total of 11-12 units. A minimum of grade of C is required in each course taken. At least one half of the units toward the certificate must be completed at Fullerton College.

Code	Title	Units
<b>Required Courses: (11-12 units)</b>		
TECH 081 F	Technical Mathematics I	3
TECH 108 F	Manufacturing Processes	2-3
or TECH 127 F	Industrial Safety	
TECH 131 F	Basic Electricity and Basic Electronics	2
TECH 132 F	Basics of Electric Motor Controls	2
TECH 135 F	Introduction to Programmable Logic Controllers	2
<b>Total Units</b>		<b>11-12</b>

## Program Level Student Learning Outcomes:

**OUTCOME 1:** Safely execute technical skills in lab environments that are required for employment in automation industries.

**OUTCOME 2:** Apply problem-solving skills to automation design and product development.

**OUTCOME 3:** Demonstrate a deep understanding of the core material required for certification in automation programs.

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[https://www.curricunet.com/fullerton/reports/program\\_report.cfm?programs\\_id=1045](https://www.curricunet.com/fullerton/reports/program_report.cfm?programs_id=1045)