

# Industrial Automation

## Introduction to Industrial Automation (Certificate of Achievement)

The Introduction to Industrial Automation Certificate program is modeled after local industry competency standards and includes study in the following areas: electrical theory and components, soldering, wiring diagrams, safety programmable logic controllers, and Allen Bradley SLC 500 and CLX 5000 computer integrated manufacturing. This program will provide the necessary knowledge and skills to increase job performance for careers in electronics technology. Students will be prepared for entry level positions in petroleum/energy, manufacturing automation, process control, logistics and distribution, material processing, and industrial maintenance.

### Program Student Learning Outcomes

Upon successful completion of the program, students will be able to:

- demonstrate proficiency of safety principles required for industrial employment.
- demonstrate proficiency in automation programming/troubleshooting related to programmable logic controllers.
- demonstrate problem solving skills used in industrial manufacturing environments.
- demonstrate an understanding of industrial manufacturing and electronics.
- demonstrate an understanding of the core hardware and theory related to programmable automation controllers.

Course #	Title	Units
<b>Required Core Courses</b>		
ELET-001.....	Basic Electronics.....	3
ELET-002.....	Electronic Circuits.....	4
ELET-003.....	Programing Logic Controllers.....	3
ELET-006.....	Electrical Motors and Controls.....	4
ITEC-008.....	Mechanical Systems.....	3
ITEC-015X.....	Occupational Work Experience.....	1
<b>Total .....</b>		<b>18</b>

This is a **recommended sequence** of courses for timely completion of this program. Entry in to transfer level English and math required to follow this recommended sequence. Please see your counselor to formalize your personalized educational plan or for alternative planning.

SEMESTER 1		SEMESTER 2	
ELET-001.....	3	ELET-002.....	4
ELET-003.....	3	ELET-006.....	4
ITEC-008.....	3	ITEC-015X.....	1
<b>9</b>		<b>9</b>	