

Manufacturing Automation

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The West Hills College Lemoore Manufacturing Automation Degree program is modeled after local industry competency standards. This program includes study in the following areas: electrical theory and components, soldering, wiring diagrams, safety, programmable logic controllers, instrumentation, temperature, pressure, level detectors, computer integrated manufacturing motor theory and wiring, and mechanical systems. This program prepares students for careers in manufacturing automation, intermediate-level positions in petroleum/energy, manufacturing, instrumentation/process control, logistics and distribution, ancillary services, food and materials processing, and industrial maintenance. Students will be prepared for entry level positions in Industrial Automation Specialist, Industrial Technician, and Industrial Electrical Technician.

Program Student Learning Outcomes

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

- demonstrate proficiency of safety principles in manufacturing automation required for industrial employment.
- demonstrate troubleshooting and problem solving skills used in automated industrial manufacturing related fields.
- demonstrate an understanding of instrumentation and mechanical systems.
- demonstrate safe operation of motors and process control technology that is required for industrial manufacturing.
- demonstrate an understanding of automated industrial manufacturing and electronics that is required for transfer to a four year university degree program and certification.

Course #	Title	Units
Required Core Courses		
ELET-001.....	Basic Electronics.....	3
ELET-002.....	Electronic Circuits.....	4
ELET-003.....	Programming Logic Controllers.....	3
ELET-004.....	Computer Integrated Manufacturing.....	3
ELET-005.....	Instrumentation and Process Control.....	3
ELET-006.....	Electric Motor and Controls.....	4
ELET-007.....	Advanced Programmable Logic Controllers.....	3
ITEC 002.....	Introduction to Drafting and CAD	3
ITEC-008.....	Mechanical Systems.....	3
ITEC-015X.....	Occupational Work Experience Education.....	1
Total		30

*This is a **recommended sequence** of courses for timely completion of this program. Please see your counselor to formalize your personalized educational plan or for alternative planning.*

SEMESTER 1		SEMESTER 2		SEMESTER 3		SEMESTER 4	
ELET- 001.....	3	ELET-002.....	4	ELET-005.....	3	ELET-004.....	3
ELET- 003.....	3	ELET-006.....	4	ITEC-015X.....	1	ITEC-002.....	3
ITEC 008.....	3	ELET-007.....	3	CHEM-001A.....	5	ITEC-015X.....	2
ENGL 001A.....	3	ITEC-015X.....	1	PHIL-001.....	3	POLSCI-001.....	3
MATH 025.....	4	HE-035.....	3	PSYCH-001.....	3	HIST-017A.....	3 OR
	16		15		15	HIST-017B.....	3
							14