Clovis Community College

2024-2025
Mechatronics/Industrial Automation Certificate of Achievement
Complete the following program of study (Major #C.8391.CA). Major requirements (26 units minimum).

The Certificate of Achievement in Mechatronics/Industrial Automation is designed to prepare students for employment as an entry-level industrial automation technician. The program prepares students for careers in the design, operation, and maintenance of industrial automation systems focusing on the local industries that utilize these technologies, such as food production, petroleum production, fabrication, and logistics. This program focuses on the application of electronics and computer technology to industrial automation systems, including instrumentation and control, industrial robotics, and process control systems. Significant emphasis is placed on project-based learning facilitated by significant laboratory work.

Name: _____ **Student ID:** _____ **Date:** _____

Course Overview and Selection

Required Core Courses:

Course	Course Description	Units	Completed	In Progress	Planned
MECH 2	Mechanical Systems	3			
MECH 3	Electricity and Electronics (AC & DC)	4			
MECH 4	Electric Motors - Controls	4			
MECH 5	Programmable Logic Controllers (PLCs)	3			
MECH 19	Work Experience, Mechatronics/Industrial Automation	3			
MECH 23	Instrumentation and Process Control	3			
MECH 35	Industrial Communications Networks	3			
MECH 45	Industrial Automation Systems	3			

Notes:
"C" grade or better is required in courses listed above:

Two Semester Sequence	Units	Courses
1st Semester	14	MECH 2, MECH 3, MECH 4, MECH 5
2nd Semester	12	MECH 19, MECH 23, MECH 35, MECH 45
Total Units	**26**	

Faculty Advisor : Matthew Graff

Program Learning Outcomes:

1. Safety: Identify the hazards associated with automated machinery and determine appropriate safety methods for working in an industrial environment.

2. Troubleshooting: Utilize electrical/mechanical troubleshooting and communication skills to diagnose, repair, test, and return to service failed components.

3. Identify and Solve Problems: Identify, analyze, and solve narrowly defined technical problems determining root cause with a general understanding of industry practices.

4. System Design and Programming: Use basic understanding of programming and industrial system design to enhance systems via incremental changes in software and/or in hardware modifications.

5. Communication: Apply written, oral and graphical communication skill in both technical and non-technical environments, and identify and use appropriate technical literature.

6. Teamwork, Professionalism, and Quality: Function effectively as a team member, both individually and as group, demonstrating a commitment to quality, timeliness, and continuous improvement in a professional manner.

7. Student Selection and Fees: The program is open to all Clovis Community College students. The cost of program to students would include the required textbooks and/or online educational resources.

Comments:

Faculty Advisor : Matthew Graff