Clovis Community College

2022-2023

Certificate In Mechatronics/Industrial Automation - Electronic Job Skills

Complete the following program of study (Major #C.8392.CN). Major requirements (11 semester units).

The Electronic Job Skills Certificate in Mechatronics/Industrial Automation is designed to prepare students for employment as entry-level industrial assemblers and operators. The program prepares students for careers in 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 electronics, motors, motor control and programmable logic controllers. 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 3	Electricity and Electronics (AC & DC)	4			
MECH 4	Electric Motors – Controls	4			
MECH 5	Programmable Logic Controllers (PLCs)	3			

Notes:

Total Units 11
All courses require a "C" (2.0) or higher.

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.

Comments:

Faculty Advisor: Matthew Graff