

MANUFACTURING TECHNOLOGIES, SKILLS CERTIFICATE

Programmable Logic Controllers (PLC) 1

This Skills Certificate program prepares students to take the PMMI Mechatronics Certification Test in the area of programmable Logic Controllers (PLC's) 1.

Outcomes

Students completing this certificate will:

- Identify and apply concepts of PLC components, their relationships, and interactions with each other. Students will also identify different types of ladder logic used in PLC programming and explain and utilize common PLC functions within a PLC program.
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- Utilize different numbering systems within a PLC program and explain the AND, OR and NOT functions within PLC ladder logic, Boolean identities and mnemonic codes. Students will also differentiate between the decimal, BCD, binary, hexadecimal, and octal numbering systems. programming

Skills Certificates provide training for entry level positions or career advancement and are designed to prepare students to take state, national and/or industry-recognized certifications or licensing exams. Skills certificates are awarded upon completion of coursework and marked on a student's transcripts at the end of the semester (Student are unable to declare intent to complete a skills certificate.) Skills Certificates are not eligible for Financial Aid.

To earn a skills certificate, students must:

1. Maintain a minimum cumulative GPA of 2.0
2. Have no financial or library obligation to the college

| Code | Title | Units |
|---------------------------------|----------------------------------|-------|
| Certificate Requirements | | |
| ELM 134 | Programmable Logic Controllers I | 3 |
| ELM 233 | Introduction to Instrumentation | 3 |
| MPT 110 | Automated Production Concepts I | 3 |
| MPT 120 | Automated Production Concepts II | 3 |
| Total Units | | 12 |

Please contact Program Coordinator for advisement on recommended course sequence.