INDUSTRIAL MECHATRONICS MAINTENANCE TECHNOLOGY | ELECTRICAL CERTIFICATE

Training provided through the Industrial Mechatronics Maintenance Technology, Electrical Certificate program prepares students for a career in the maintenance of large electrical, electronic, hydraulic, and pneumatic manufacturing systems. Students will develop skills to define, integrate, install, program, and maintain complex control systems. Coursework is designed to prepare students for the National Institute of Metalworking Skills (NIMS) certificate exams.

Program Learning Outcomes

Upon completion of the Electrical certificate program students should be able to:

- Describe the correct use of electrical measurement equipment, including digital multimeters, oscilloscopes, and various power meters
- Differentiate between AC and DC circuity, using standard mathematical constructs
- Explain basic electronic principles
- Install, troubleshoot, and maintain digital circuitry utilizing ladder logic
- Apply effective oral and written communication skills
- Work effectively in a team-based environment
- Create and modify original and existing Programmable Logic Controllers (PLC) programs
- Assemble and wire transformers and rotating machinery
- Identify industrial electrical hardware, codes, and various electrical/electronic systems

This program is currently not accepting new students as it is undergoing substantial revisions. Please contact your academic advisor (https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpikespeak.edu%2Fadvising%2F&data=05%7C02%7CKrissy.Trujillo%40PikesPeak.edu%7C406eeefa4f8349d8b1e908debc35e6f3%7C2a22b1ea780a4a3db1b7ce5f9ac45368%7C0%7C0%7C639155136882225643%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=OnlJV4hf6%2FxkPTVfxWQhqeCjwF4jWwwNH5y%2FSdJpYDI%3D&reserved=0) to review your program options.

Additional information is available on the Industrial Mechatronics Maintenance Technology web page (https://www.pikespeak.edu/programs/industrial-mechatronics-maintenance-technology/).

Certificate Requirements

Code	Title	Hours
CON 1057	National Center for Construction Education & Research Core	5
CON 1062	National Center for Construction Education & Research Electrical I	6
CON 1063	National Center for Construction Education & Research Electrical II	6
CON 1064	National Center for Construction Education & Research Electrical III	6
CON 1065	National Center for Construction Education & Research Electrical IV	6
OSH 1310	10-HR Construction Industry Standards	1
Total Hours		**30**