Electromechanical Engineering Technology (Advanced Diploma)

Meet our students

Our students are known for their deep understanding of automation and robotics. During this program, they learn key skills in programmable logic controllers, robotic programming and applications, fluid power, HVAC, electropneumatics, computer-integrated manufacturing, 3D modeling and more. In their final semester, these students apply their skills to a capstone project that provides solutions for real-world problems experienced by our industry partners.

Learn more about the classes these students take by visiting the program webpage.

Core competencies and skills

- Mechanical and computer drafting and design using 3D parametric software (including AutoCAD, SolidWorks, and CATIA).
- Writing PLC programs using ladder logic, structured text, sequential function charts, and function blocks.
- Programming robotic systems.
- SCADA programming and HMI.
- Using of basic metrology measuring equipment.
- Operating shop equipment - hand, machine, and cutting tools.
- Generating G-Codes using Mastercam.
- Understanding management duties - planning, leading, organizing, controlling.
- Planning, implementing, and evaluating projects using project management skills.

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Work term availability

- Winter (January – April)
- Summer (May-August)
- Fall (September – December)

Note: Some students will be available for an 8-month work term from September – April.

Work term capabilities:

- Selecting PLC devices, input, output sensors and components, programming, and troubleshooting for machine and process control.
- Selecting and recommending hydraulic and pneumatic equipment and components and designing such systems.
- Testing and troubleshooting automatic control equipment.
- Energy accounting, costing, and balancing.
- Applying computerized control techniques to manufacturing automation.
- Applying QA techniques for standard inspection.
- Producing a control diagram for a HVAC unit and equipment layout for a HVAC plant.
- Producing equipment layout and flow diagrams for a manufacturing plant.
- Fabricating and building electrical, electronic, and mechanical components and assemblies.
- Interpreting and producing electrical, electronic, and mechanical drawings and other related technical documents and graphics using CAD software.
- Designing and building various industrial motor controls and data acquisition devices and systems.

Employer resources

- Employer webpage
- Program information
- Program course schedule

Post a job

To post a job, log in to our online platform **Sheridan Works**.

Don't have an account? Create one today using our **Employer Registration Guide**.

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