

## Industrial Automation Microcredential



Badge Awarded to

## Jesse Grant

This 3-module, 96-hour microcredential explores the fundamentals of modern automation, advanced control techniques, and technology. Students gain an understanding of how devices such as sensors, cylinders, and valves are integrated and controlled by a programmable logic controller (PLC). This microcredential will prepare students for careers in manufacturing and industrial maintenance, automation technicians, PLC programming, and machine building and integration. Employees working as manufacturing supervisors and lead hands will also benefit from training in automation technology.

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Issuer

Georgian College

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At Georgian, we work with industry and community partners to offer relevant, cutting-edge curriculum, quality work placements and co-op experiences with top employers.

Our students graduate with the skills and the mindset to be innovative thinkers and changemakers who can transform their workplaces and communities.

Our vision is to accelerate success through exceptional teaching and learning, innovation and partnerships.

## Criteria

Upon successful completion of this microcredential, the student has reliably demonstrated the ability to:

- 1. explain how industrial sensors function;
- 2. demonstrate safe use of electrical, pneumatic, and automation equipment;
- 3. create and troubleshoot electro-pneumatic control circuits;
- 4. understand how cylinders, valves, sensors, and the PLC are integrated;
- 5. perform electrical, pneumatic, and PLC troubleshooting of automation;
- 6. create a PLC program with common instructions such as timers, counters, comparisons, and math commands;
- 7. create a PLC program with advanced instructions such as subroutines, analog control, program control, sequencers, and peer-to-peer communication; and
- 8. understand how the PLC and robot(s) are integrated.

## Badge endorsements

MTH Manufacturing Inc.
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https://www.mthaxle.com/

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