



Robotics Microcredential



Badge Awarded to

Jesse Grant

This 3-module, 96-hour microcredential explores robotic motion, robot programming, and integration with a programmable logic controller (PLC), while focusing on industrial robotic safety measures. This microcredential will prepare students for careers in robot programming, machine-building and integration, manufacturing maintenance, and as an automation technician.

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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. demonstrate how to use the robot and automation safely;
2. demonstrate how to use different types of robot motion coordinate systems;
3. understand the functions of different EOAT systems and troubleshoot common issues;
4. create Kuka and Fanuc robot programs that use TCP and User/Base Frame systems;
5. for safety purposes, setup axis and zone monitoring for the robot;
6. create Kuka and Fanuc robot programs that use I/O and basic to advanced logic commands;
7. understand how the Fanuc DCS safety system works;
8. demonstrate how to program a co-operative robot;
9. understand how a vision system works;
10. understand how the robot, PLC, and external devices are integrated;
11. demonstrate how to program a Pick N Place robot using the PLC;
12. troubleshoot faults of various robots (e.g., Fanuc, Kuka, UR, and Pick N Place); and
13. understand how automation and robotic systems are integrated with the facility.

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