

Automation

Degree Type

Certificate

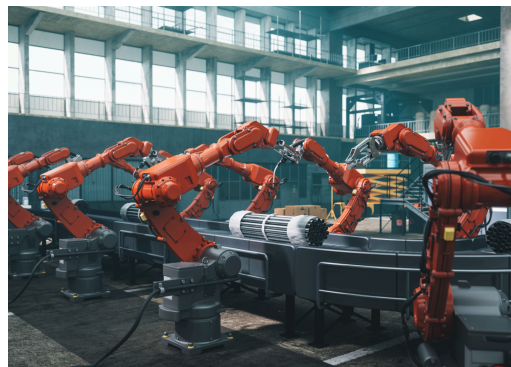
This program is not currently accepting new students.

NHTI's Automation certificate program prepares you for employment in advanced manufacturing. You'll master fundamentals by taking courses in engineering design, controls, computer programming, and robotics and automation.

Do you have questions? Contact Dennis Tappin at dtappin@ccsnh.edu.

Career Information

Students who complete this program can enter into the following professions (not an inclusive list): automation technician, engineer, and automation maintenance mechanic.



Admission Requirements

It is strongly recommended engineering technology applicants have satisfactorily completed high school-level courses in Chemistry, Physics, and least three years of college preparatory math (Algebra I, Algebra II, and Geometry) with minimum grades of C.

Curriculum

| Item # | Title | Lecture Hours | Lab Hours | Credits |
|-------------------------|--------------------------------------|---------------|-----------|-----------|
| MATH120C | Quantitative Reasoning | 4 | 0 | 4 |
| MFET202C | Measurement and Control | 3 | 2 | 4 |
| CPET107C | Introduction to Programming with C++ | 2 | 3 | 3 |
| MCET105C | Engineering Design | 4 | 0 | 4 |
| RAET205C | PLC Programming | 2 | 3 | 3 |
| RAET210C | Robotics and Automation I | 2 | 4 | 4 |
| RAET220C | Robotics and Automation II | 2 | 4 | 4 |
| Subtotal Credits | | 19 | 16 | 26 |
| Total Credits | | | 26 | |

Additional Information

Program Learning Outcomes

- Understand basic electric circuits, controls, and programmable logic controllers (PLCs).
- Apply basic principles of engineering to design and analyze processes, subsystems, and components.
- Design and develop the software to control automation equipment.
- Integrate automation equipment components such as motion control, vision systems, PLCs, and robotic arms.
- Apply knowledge, problem solving techniques, and hands-on skills in the design and application of manufacturing systems, automated manufacturing processes, process controls, and systems integration.