



Lower Columbia College

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lowercolumbia.edu/AIR



**Prepare for a career
in the trades**

**AUTOMATION,
INSTRUMENTATION
& ROBOTICS**

LCC is an AA/EEO employer - lowercolumbia.edu/aa-eo

LCC Clery Annual Security and Fire Safety Report available at lowercolumbia.edu/CleryASFR

OVERVIEW

Automation is transforming industries across the globe—from manufacturing and energy to logistics and healthcare—driving demand for technicians with the skills to support and maintain these complex systems. In this program, you'll gain hands-on experience in robotics, programmable logic controllers (PLCs), electrical systems, instrumentation, and process control. These skills are essential for maintaining safety, improving efficiency, and supporting innovation in modern industrial environments.



CAREER PATHS

Skilled technicians are in high demand across the U.S., with these roles forming a critical part of the modern industrial workforce. As advanced technologies become standard in manufacturing, energy, and infrastructure, employment opportunities in these fields continue to grow—offering competitive wages, long-term career stability, and career advancement potential in a wide range of career paths such as:

- Industrial Maintenance Technician
- Millwright/Maintenance Mechanic
- Instrumentation & Control Technician
- Robotics/Automation Specialist
- Production Technician
- Mechatronics Technician

SKILLS & ABILITIES

- Process Control & Instrumentation
- Programmable Logic Controllers (PLCs)
- Electrical Systems, Motors & Controls
- Predictive & Preventive Maintenance
- Robotics Integration & Automation Systems
- Hydraulics
- Computer Applications & Troubleshooting
- Machining & Welding Fundamentals
- Communication & Teamwork
- Industrial Safety & First Aid
- Blueprint Reading

DEGREE OPTIONS

Students who attend full-time can earn a certificate in Industrial Maintenance in four quarters (one academic year) and an Associate in Applied Science (AAS) degree in Automation, Instrumentation, and Robotics in three to four additional quarters (two academic years total).

This program also aligns with a Bachelor's Degree in Organizational Leadership and Technical Management at LCC.



APPRENTICESHIP PATHWAYS

Use the skills you gain in this program to enter an apprenticeship pathway in one of many fields, such as manufacturing, industrial maintenance millwright, tool and die maker, production technician, aerospace workers, or operating engineers.

