

AUTOMATION & ROBOTICS

ASSOCIATE OF APPLIED SCIENCE — MECHATRONICS TECHNOLOGY DEGREE

CAREER PATHS

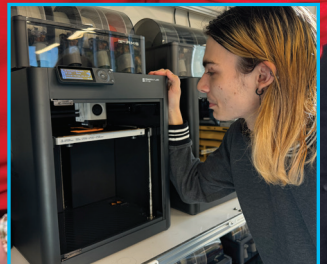
AUTOMATION TECHNICIAN
PLC PROGRAMMER
ROBOTICS INTEGRATION

SALARY

\$70,760*
MEDIAN ANNUAL INCOME

JOB GROWTH

1%* 2024-2034



SCAN FOR YOUR FUTURE

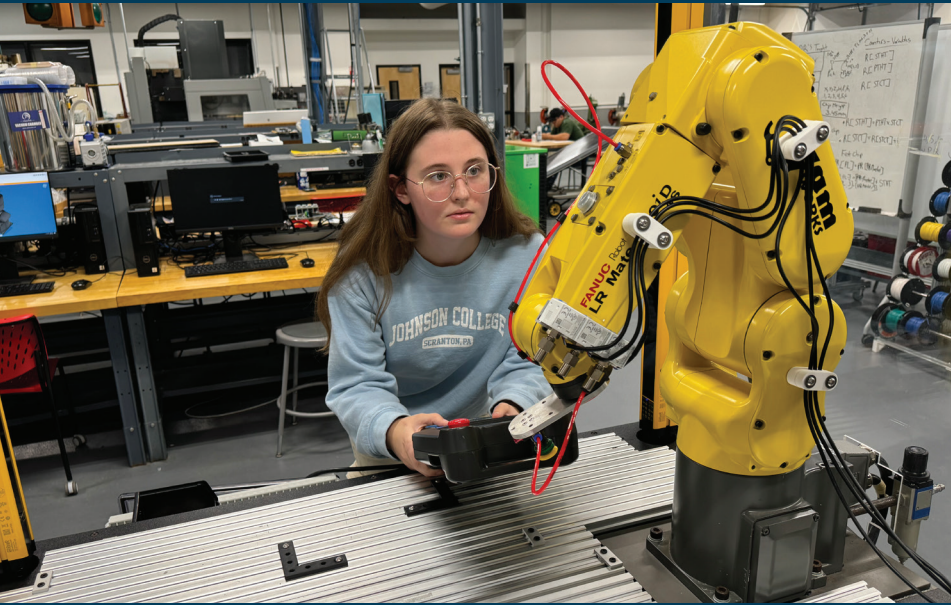


*2025 Bureau of Labor Statistics
Johnson College does not discriminate with regard to race, color, national origin, sex, or disability.



AUTOMATION & ROBOTICS

ASSOCIATE OF APPLIED SCIENCE —
MECHATRONICS TECHNOLOGY DEGREE



PROGRAM OBJECTIVE

The Automation and Robotics concentration in the Mechatronics Technology program prepares graduates for entry-level roles in industrial automation by building proficiency in PLC/HMI programming, robotic system integration, sensors/vision, motion, and pneumatics. Emphasis is on safe commissioning, troubleshooting, and documentation of automated cells using Industry 4.0 concepts.

READY. SET. WORK.

- Goal 1:** Graduates will possess the skills needed to obtain an entry-level technician position in the mechatronics field.
- Goal 2:** Graduates will be able to troubleshoot electrical, electronic, and mechanical systems using theoretical principles and measured values to resolve operational issues.
- Goal 3:** Graduates will be able to safely program and troubleshoot an industrial robotic arm to meet defined production and safety requirements.
- Goal 4:** Graduates will design, program, commission, and troubleshoot PLC-based control systems. Integrating HMIs and safety circuits to meet defined functional, safety, and production requirements.

Applicants are encouraged to arrange a campus visit and a personal information session with a Recruitment Advisor. Appointments may also be made to meet with appropriate faculty and current students.

CAREER OPPORTUNITIES

Automation and robotics technicians work across many industrial environments, including automotive, food and beverage, packaging, logistics/warehousing, and medical device manufacturing. They often split time between production lines and controls areas, working on commissioning equipment, tracing PLC/robot signals, and supporting automated cells.



SCRANTON CAMPUS
3427 NORTH MAIN AVENUE
SCRANTON, PA 18508

HAZLETON CAMPUS
370 MAPLEWOOD DRIVE
HAZLE TOWNSHIP, PA 18202

Courses are subject to change. Please check johnson.edu for up-to-date course info.

Johnson.edu

PROGRAM COURSES

CREDITS

TERM 1

Computer Aided Design	3
Introduction to Electronic Equipment	1
DC Electricity and Instrumentation	2
DC Electricity and Instrumentation Lab	1
Alternating Current and Passive Devices	2
Alternating Current and Passive Devices Lab	1
Project Management	2
Assembly Fundamentals	3

TERM 2

English Composition I	3
Humanities Elective	3
Trigonometry	3
Additive Manufacturing	1
Additive Manufacturing Lab	2
Sensors and Systems in Automation	2
Sensors and Systems in Automation Lab	1
Microcontrollers and Applications	1
Microcontrollers and Applications Lab	2

TERM 3

Customer Service and Our World	3
Automation and Robotics I	2
Automation and Robotics I Lab	2
Programmable Logic Controllers I	2
Programmable Logic Controllers I Lab	2
Industry 4.0	1
Industry 4.0 Lab	3

TERM 4

Automation and Robotics II	2
Automation and Robotics II Lab	2
Programmable Logic Controllers II	2
Programmable Logic Controllers II Lab	2
Production and Assembly	2
Production and Assembly Lab	3
Capstone Project/ Capstone Project Lab	4

Minimum Credits to Graduate

66

This term layout is based off of a fall start. Students who start in the spring will be required to attend an additional term to complete their degree.

There may be special admission requirements for this program. Please speak with a Recruitment Advisor by calling **570-702-8856** or visit our website johnson.edu to review our requirements.