

HEATING, VENTILATION, & AIR CONDITIONING TECHNOLOGY + PLUMBING

ASSOCIATE OF APPLIED SCIENCE DEGREE

PROGRAM OBJECTIVE

The Heating, Ventilation, and Air Conditioning (HVAC) with Plumbing program provides students with the skills needed for entry-level positions in the installing, repairing and troubleshooting of various heating and cooling equipment and the residential and light commercial plumbing industry. Students will work with industrial standard tools associated with equipment such as oil and gas furnaces, refrigeration units, and air conditioning equipment. Students will also gain hands-on experience installing, servicing, and maintaining water supply, drainage, waste, and vent (DWV) systems using industry-standard tools, materials, and methods.

READY. SET. WORK.

- Goal 1:** Graduates will possess the skills necessary to obtain an entry-level HVAC Technician position.
- Goal 2:** Graduates will demonstrate safe HVAC practices and obtain an understanding of the significance of safety procedures in the HVAC environment.
- Goal 3:** Graduates will be able to perform entry-level troubleshooting and preventative maintenance on various heating, air conditioning and refrigeration systems.
- Goal 4:** Graduates will develop the hands-on skills required to install, service, and maintain residential and light commercial plumbing systems safely and efficiently.
- Goal 5:** Graduates will use technical skills, code knowledge, and troubleshooting techniques to plan, install, and repair plumbing systems while maintaining clear and professional communication on the job site.

CAREER OPPORTUNITIES

Employment opportunities consist of HVAC installers, controls technicians, service technicians, maintenance mechanics, plumbers, engineers, programmers, research development, management, sales, and dispatch; as well as residential service plumbers, pipefitting/steamfitters, new construction plumbers, drain technicians, backflow technicians, plumbing salespeople, and estimators.

SALARY

\$62,575* MEDIAN ANNUAL INCOME



SCAN FOR YOUR FUTURE



* 2025 Zip Recruiter
Johnson College does not discriminate with regard to race, color, national origin, sex, or disability.

HEATING, VENTILATION, & AIR CONDITIONING TECHNOLOGY + PLUMBING

FALL START-PROGRAM COURSES

CREDITS

TERM 1 (Fall)

Introduction to Pipefitting	2
Fundamentals of Electricity	2
Fundamentals of Electricity Lab	2
OSHA 10 Construction Safety Certification	0
Industry Communication	3
College Algebra I and Trigonometry	3
First Year Experience	1

TERM 2 (Spring)

Contract Drawings	3
Introduction to Electricity for the Trades	1
Introduction to Electricity for the Trades Lab	2
Refrigeration	2
Refrigeration Lab	4
Plumbing Fixtures	3
Plumbing Print Reading and Codes	2

TERM 3 (Fall)

Heating System Design and Installation	2
Heating System Design and Installation Lab	4
Air Conditioning Systems	3
EPA Section 608 Certification	1
Public Speaking	3

TERM 4 (Spring)

Commercial HVAC/R OR Introduction to Building Automation Systems	3
Motors and Controls	2
Motors and Controls Lab	4
Microcomputer I	3
Fundamentals of Carpentry	1
Fundamentals of Carpentry Lab	2

TERM 5 (Fall)

Water Heaters	2
Advanced Plumbing	3
Applied Practice and Special Topics OR Internship	4
Science Elective	3
Introduction to Business	3

Minimum Credits to Graduate 73

SPRING START-PROGRAM COURSES

CREDITS

TERM 1 (Spring)

Introduction to Pipefitting	2
Fundamentals of Electricity	2
Fundamentals of Electricity Lab	2
OSHA 10 Construction Safety Certification	0
Plumbing Fixtures	3
Plumbing Print Reading and Codes	2
College Algebra I and Trigonometry	3
First Year Experience	1

TERM 2 (Fall)

Contract Drawings	3
Introduction to Electricity for the Trades	1
Introduction to Electricity for the Trades Lab	2
Heating System Design and Installation	2
Heating System Design and Installation Lab	4
Advanced Plumbing	3

TERM 3 (Spring)

Fundamentals of Carpentry	1
Fundamentals of Carpentry Lab	2
Industry Communication	3
Refrigeration	2
Refrigeration Lab	4
Microcomputer I	3

TERM 4 (Fall)

Air Conditioning Systems	3
EPA Section 608 Certification	1
Water Heaters	2
Introduction to Business	3
Public Speaking	3

TERM 5 (Spring)

Motors and Controls	2
Motors and Controls Lab	4
Applied Practice and Special Topics OR Internship	4
Commercial HVAC/R OR Introduction to Building Automation Systems	3
Science Elective	3

Minimum Credits to Graduate 73

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.

SCRANTON CAMPUS
3427 NORTH MAIN AVENUE
SCRANTON, PA 18508

Johnson
COLLEGE OF TECHNOLOGY
COLLEGE

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