# **HVAC**

Heat up career opportunities as you control the climate

Open the valve to the world of heating, ventilation and air conditioning. Get your potential flowing as you become a pro at residential plumbing. Heat up your future and learn to control the climate in residential and commercial settings. Master the coinciding electrical and welding skills. Venture into air distribution. Seal the deal with blueprints and drawings.













### **Units of Study**

- Plumbing Orientation and Safety
- Blueprints Reading and Drawings
- Drain Waste and Vent Systems
- Water Distribution Systems
- Fixtures, Valves and Faucets
- Water Heaters and Boilers
- · Radiant Heat and Baseboards
- · Hydronic Installation and Piping
- · Carbon Pipe and Fittings
- Plastic Pipe and Fittings
- · Copper Pipe and Fittings
- Gas Heat
- HVAC Orientation and Safety
- · Soldering and Brazing
- · Basic Electricity
- · Fundamentals of Refrigeration
- Refrigeration Processes/Piping
- Ferrous Metal Piping Practices
- Fundamentals of Heating
- Forced-Air Gas Furnaces
- Electric Heat
- Air Distribution Systems
- · Air Conditioning
- Heat Pumps



# Available High School Academic Credits

At district request, students may earn:

- English
- Science

# Licensing/Industry-Based Certifications

Students have opportunities to earn:

- OSHA 10 Construction Industry
- EPA Refrigerant Handler Certification

# **Work-Based Learning**

Organizations that support this program:

- Isaac Heating and Air
- John W. Danforth Co.
- MCC Applied Technology Center
- Wolf Mechanical
- Triple O
- FLOW Mechanical
- Ryan Plumbing & Heating
- · Gatti Plumbing
- AireServe
- Local #13 and Local #46



# **Career Opportunities**

Minimal Requirement Beyond CTE

- Plumber
- HVAC Technician

#### Additional Education and/or Experience

- Foreman
- Energy Systems Control Tech
- Mechanical Engineer

# **Postsecondary Pathways**

# **Dual Enrollment**

- Monroe Community College
  - Basic Refrigeration Theory (HVA101)
  - Heating Systems and Troubleshooting (HVA103)
  - Electrical Foundations and Troubleshooting (HVA105)

# **Articulation Agreements**

- Alfred State
- Monroe Community College
- University of Northwestern Ohio

Now You Can **KNOW** 

According to the Bureau of Labor Statistics, employment of heating, air conditioning, and refrigeration mechanics and installers is projected to grow 13% from 2018 to 2028.





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