



AT  
CAPE  
TECH

# HVAC/R & SUSTAINABLE ENERGY

## ABOUT THE PROGRAM

HVAC/R & Sustainable Energy will offer an introduction to the concepts of the Heating, Ventilation and Air Conditioning cluster. This program includes activities that exercise industry aligned skills such as measuring, soldering, brazing, pipe fitting, gas piping, ductwork, wiring, as well as building and service of electrical mechanical systems with refrigerants. Every project is real-world built practicing skills of designing, installing, and diagnosing furnaces and air conditioning systems. In this program, students will attain various certifications including: EPA Universal 608 Refrigerant License, a 410A Refrigerant Safety Certification-ESCO, Gastite Certification, OSHA 10 Hour Construction Safety Certification, and Basic Refrigeration Cert-ESCO (pending exam results). Within this program, apprenticeship and job opportunities through the Cooperative Education Coordinator are encouraged for eligible students during their senior year.

## STUDENTS WILL

- Gain hands-on experience while safely applying the skills learned in the classroom environment to real-world situations.
- Work with refrigeration cycles, heat pumps and geothermal heating/cooling systems, as well as sustainable components for building designs such as gas fired boiler projects, ventilation systems and photovoltaics.
- Earn multiple certifications while preparing for direct entry into the workforce or a technical school to further studies within the career cluster.
- Explore a wide range of job opportunities through internships, field trips, and other interactions with industry professionals.
- Receive articulated credit for post-secondary career students.

## CAREER PATHWAYS

HVAC/R MECHANIC & INSTALLER // ENERGY ENGINEER // MAINTENANCE & REPAIR WORKER // MECHANICAL ENGINEER // GEOTHERMAL TECHNICIAN