



BENJAMIN FRANKLIN CUMMINGS INSTITUTE OF TECHNOLOGY

## FREE OPPORTUNITY TO PARTICIPATE IN Training for a Career in HVAC

### About Benjamin Franklin Cummings Institute of Technology

Founded in 1908, Benjamin Franklin Cummings Institute of Technology (BFCIT) is a private nonprofit technical college in Boston with a mission to educate students facing barriers to employment in advanced technologies that align with the needs of high-demand industries in greater Boston. Along with a solid technical foundation and practical on-the-job experience, BFCIT emphasizes team building, problem-solving, and communication skills to succeed in today's workforce. BFCIT fills a distinct niche in the Boston higher education environment as the only two-year technical college in eastern Massachusetts.

### Job Outlook for a Career in HVAC&R

Considered a clean energy job, the foreseeable job outlook and demand for HVAC and Maintenance technicians are favorable. Much of the anticipated growth in the field will occur in large part due to three factors: increased construction, environmental concerns, and the life expectancy of HVAC units.

As more homes and commercial structures are built, more qualified technicians will be needed to install increasingly sophisticated climate-control systems. Growing concerns for the environment are expected to prompt both residential and business consumers to retrofit, upgrade, or replace older and less energy-efficient systems with new and "greener" models, which are in the long term less expensive to operate. This environmental impetus will be further supported by regulations prohibiting the discharge and production of older types of refrigerant pollutants. Because most HVAC units have a lifespan of between ten and fifteen years, there will be additional sustained opportunities for trained technicians.

**Potential Career Paths:** HVAC&R Technician, HVAC&R Apprenticeships, HVAC&R Service Technicians, HVAC Mechanic, HVAC Installer, HVAC, Maintenance Tech, Maintenance Tech or Maintenance Supervisor

**FREE training opportunity  
for a limited number  
of individuals**

**Use the QR code below to  
apply for this program:**



BENJAMIN FRANKLIN CUMMINGS  
INSTITUTE OF TECHNOLOGY

### BY THE NUMBERS

**1,900**

open HVAC&R positions  
in MA each month  
in past year

**13%**

expected job growth rate  
for this industry  
through 2028

**\$65K**

median salary (\$31/hour)  
MA is one of the nation's  
top-paying states for HVAC&R  
mechanics and installers

**84%**

job placement rate  
(full time, in field)

# Training for a Career in HVAC

## About the Fundamentals of HVAC&R Program at BFCIT

The Fundamentals of Heating, Ventilation, Air Conditioning and Refrigeration (HVAC&R) program hosted by BFCIT is a fast-tracked, six-month program. This program offers 2,000 credit hours needed to obtain a Massachusetts Refrigeration and Technician license, and graduates receive 18 college credits. This program runs March 2023 through the beginning of September 2023. Classes will be held at 41 Berkeley Street Street, Boston on Monday, Tuesday, Wednesday and Thursday from 4:00 to 10:00 pm.

The curriculum is structured to provide a basic knowledge of the refrigeration, air conditioning, and heating fields with no prior experience needed. Core courses cover refrigeration and heating principles, basic electricity and controls for HVAC&R, safety in the HVAC&R field, and use of HVAC&R tools and equipment. An EPA course covering the recovery, reclamation, and recycling of refrigerant is also provided. As the program continues, students concentrate on commercial refrigeration, air conditioning, psychometrics, and heat pumps, the electrical and mechanical components of heating systems, including oil and gas-fired units, forced hot air, and hydronic boiler systems in a lab environment. Students will be prepared to take their OSHA 10 and Universal EPA 608 certificates which is included in the cost of the program.

### Upon successful completion of this HVAC&R Certificate, graduates are qualified to:

- Demonstrate the principles of refrigeration and air conditioning.
- Identify the principles of different refrigerants and their temperature-pressure relationships.
- Demonstrate knowledge of refrigeration and air conditioning components, including compressors, evaporators, metering devices, and condensers.
- Implement proper charging of refrigeration and air conditioning systems and proper leak protection methods.
- Solder and braze pipes and fittings.
- Pressure test and detect leaks in refrigeration systems.
- Recover, reclaim and recycle refrigerant in accordance with EPA and Mass. Dept. of Public Safety guidelines.
- Flare and swage tubing.
- Troubleshoot electrical and mechanical malfunctions of commercial and domestic units.
- Use HVAC&R tools and measuring devices effectively.
- Proper installation maintenance procedures of heating, refrigeration, air conditioning, and ventilation equipment.

### FREE training opportunity for a limited number of underemployed or unemployed individuals.

- Must have a high school diploma or GED to participate in this program.
- Vaccines—including Covid 19—required to enroll in this training program.
- Ability to stand on feet for up to 8 hours and lift up over 30 pounds.
- Must be able to commit to attend classes 4 evenings a week Mon, Tues, Wed, Thurs, 4:00–10:00 pm.
- Driver's License or Willingness/Desire to Obtain One Strongly Encouraged

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