



# Refrigeration & Air Conditioning Service Technician



EAST COAST TRADES COLLEGE

Heating, refrigeration and air conditioning mechanics install, maintain, repair and overhaul residential central air conditioning systems, commercial and industrial refrigeration and air conditioning systems and combined heating, ventilation and cooling systems.

## Course Outline:

- Safety
- Hoisting, Lifting & Rigging
- Access/Egress Equipment
- Tools & Equipment
- Refrigeration Fundamentals
- Refrigerants and Oils
- Valves & Accessory Devices
- Piping, Tubing, Soldering & Brazing
- Leak Testing, Evacuation & Charging
- Electrical Fundamentals
- Motors I
- Blueprint Reading
- Refrigeration & Air Conditioning Installation
- E-Communication & Networking I
- Workplace Mentoring

## Where can Refrigeration & Air Conditioning Service Technicians be employed?

They are employed by heating, refrigeration and air conditioning installation contractors, various industrial settings, food wholesalers, engineering firms and retail and servicing establishments. Transport refrigeration mechanics are included in this unit group.

## What type of jobs can I obtain after completing this program?

- Air conditioning and heating mechanic
- Air conditioning and refrigeration mechanic
- Central air conditioner installer
- Central air conditioner repairer
- Heating and air conditioning mechanic
- Commercial air conditioning mechanic
- Heating, ventilation and air conditioning (HVAC) mechanic
- Hydronics technician
- Refrigeration and air conditioning mechanic apprentice
- Refrigeration and mechanical technician
- These are just a few of the many jobs that you could obtain, please refer to the National Occupational Classification for more job titles.

## What are the employment requirements for working in this trade?

- Completion of secondary school and training courses or a vocational program is usually required.
- Completion of a three to five year apprenticeship program or A combination of over five years of work experience and industry courses in refrigeration and air conditioning repair is usually required to be eligible for trade certification.
- Trade certification for refrigeration and air conditioning mechanics is compulsory in Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Alberta and available, but voluntary in all other provinces and the territories.
- Trade certification for transport refrigeration mechanics is available, but voluntary, in New Brunswick and Alberta.
- Red Seal endorsement is also available to qualified refrigeration and air conditioning mechanics upon successful completion of the inter provincial Red Seal examination.





## What type of work do Refrigeration & Air Conditioning Service Technicians do?

- Read and interpret blueprints, drawings or other specifications.
- Measure and lay out reference points for installation.
- Assemble and install refrigeration or air conditioning components such as motors, controls, gauges, valves, circulating pumps, condensers, humidifiers, evaporators and compressors using hand and power tools.
- Measure and cut piping, and connect piping using welding and brazing equipment.
- Install, troubleshoot and overhaul entire heating, ventilation, air conditioning, air handling, refrigeration and air conditioning systems.
- Start up system and test for leaks using testing devices.
- Recharge system with refrigerant, check and test regulators, calibrate system and perform routine maintenance or servicing.
- Repair and replace parts and components for entire refrigeration, air conditioning, ventilation or heat pump systems.
- May install, maintain and repair equipment in refrigerated trucks used to transport food or medical supplies.
- May prepare work estimates for clients.

## How Our Program Works:

Students will attend classes the first 3 weeks 5 days per week for essential skills and safety training. The next 27 weeks students will attend classes for theory 2 days per week, the other 3 days students will be placed with an Industry Partner of their choice and paired with technicians in the trade to learn all hands on training right out in Industry. The last 2 weeks all students return to classes 5 days per week for theory review to prepare them for their Block I Exam with Apprenticeship and Certification their last day of class.

### Pre-requisites:

High School Diploma

GED Equivalent

Mature Student: 19 years of age (non-graduate)

Reading Comprehensive Testing

\*The information contained in this brochure is subject to change please verify with college

"Where Education & Industry Come Together

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