

HEATING AND VENTILATION AND ADVANCED GAS TECHNICIAN

Students who complete our Heating and Ventilation and Advanced Gas Technician Pre-Apprenticeship diploma program have the advantage of diversifying their skills into two relevant areas of training. Students are trained in HVAC, Gas 3 and Gas 2.

On the Refrigeration and Air Conditioning component of the program, 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.

The Gas Technician 3 component of the combined program is the starting point for technicians in the gas field. Refrigeration and Air Conditioning Mechanics who are also a holder of the Gas Technician 3 certification can carry out certain functions under supervision. The Gas Technician 2 program is a continuation of the Gas Technician 3 modules, plus additional training on specific gas fired equipment. Graduates of this program are eligible to write the Technical Standard Safety Authority (TSSA) Examination.

Program length: 52 weeks

ADMISSION REQUIREMENTS

- Minimum of a Canadian high school grade 12 or equivalent, or a mature student
- Pass an entrance test administered by Herzing
- Be interviewed in detail regarding interest in the field
- Meet any additional program specific entrance requirements

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▸ COURSE LIST

– Fundamentals of Refrigeration	– Fasteners, Hand Tools and Power Tools
– Refrigeration Tools and Materials	– Venting Practices
– Compressors	– Installation Codes, Acts and Regulations
– Electrical Fundamentals, Circuits and Controls	– Introduction to Electricity
– Fundamentals of Air Conditioning	– Technical Manuals, Specifications, etc.
– Heating and Humidification Systems	– Customer Relations
– Air Distribution and Measurements	– Introduction to Piping and Tubing Systems
– Air Conditioning, Heat Pumps and Controls	– Introduction to Gas Appliances
– Service and Troubleshooting	– Advanced Piping and Tubing Systems
– Protect Self and Others	– Basic Electricity
– Fundamentals of Refrigeration	– Gas Meters, Pressure Regulators and Relief Valves
– Controls (Mechanical and Electric)	– Forced Warm Air Heating Systems
– Domestic and Non-Vented Appliances	– Domestic Gas Fired Refrigerators
– Conversion Burner	– Forced Air Add-On Devices
– Water Heaters and Combo Systems	– Air Handling
– Hydronic Heating Systems	– Space Heating and Decorative Appliances
– Properties, Characteristics, Safe Handling of Propane and Natural Gas	

▸ CAREER OUTLOOK

Refrigeration and air condition mechanics with Gas Technician 2 and 3 certifications are employed by contractors, manufacturers and wholesalers in various industrial settings, food wholesalers, engineering firms and retail and servicing establishments.

Student will have the skills to succeed in the following areas of the industry: Refrigeration and Air Conditioning Mechanics, HVAC Mechanic, Gas Fitter, Gas Technician, HVAC Contractor, HVAC apprentice.