



Training Guide

Domestic/Residential Certified Geothermal Technician

SCOPE OF THE TRADE

“Domestic/Residential Geothermal Heating Technician” means a person who performs construction related tasks in the residential market dealing with the design, installation and servicing of ground source or geothermal heating and air conditioning systems.

PROGRAM STRUCTURE

The program is a 2 year apprenticeship with 2 levels of technical training.

Level 1 (Common Core) - 6 weeks in length

Level 2 (Geothermal) - 8 weeks in length

Total work based hours – 3000 hours

IN-SCHOOL TRAINING

All subject material is normally presented by the instructor through organized classroom lessons followed by practical hands-on demonstrations.

Safe working practices are stressed in each year of the apprenticeship program and form an integral part of the whole program.

ON-THE-JOB TRAINING

It is the employer’s responsibility to expose the apprentice to the practical training and experience required for each year of apprenticeship.

It is not our intention to compel each employer to provide on-the-Job training in every aspect of the trade, but rather to ensure that, wherever possible, each apprentice will receive appropriate practical work experience that will enhance and reinforce the knowledge acquired through Apprentice Self Study and regularly scheduled School Training Periods.

APPRENTICE SELF STUDY

As an apprentice, you must study the materials as specified for each year of In-School Training. You should acquire the prescribed learning guides and textbooks required for each year of apprenticeship as early as possible to ensure that you have sufficient time for the self-study portion of the apprenticeship program.

Your success in becoming a qualified journey-person will depend on the effort that you, the apprentice, put into your studies and practical training.

Preview the material to be covered in the In-School Training. Study any materials given by the instructor at the end of the In-School Training for self training purposes.

In the first year of the apprenticeship, it is extremely important to ensure that you can handle the science and trade mathematics. Many of the first In-School Training subjects will require you to have knowledge and the ability to apply these trade related skills.

CROSS CREDIT

Apprentices who have completed 2nd year or higher in either: Plumbing, Sheet Metal or Refrigeration, will receive credit for the level 1 (common core) and therefore will only be required to complete level 2.



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Level 1 - Common Core (6 weeks)

- Residential Heating Industry
- Trades Math
- Workplace Safety
- Safe Use and Care of Tools
- Plan Reading
- Perform Basic Drafting
- Basics of Framing
- Insulation, Vapour Barriers and the Building Envelope
- Fundamentals of Heat Loss/Heat Gain
- Basics of Electrical & Wiring
- Ventilation
- Job Skills

Level 2 - Geothermal (8 weeks)

- Familiarity with the Geothermal Aspect of the Industry
- Geothermal Heat Pump Systems
- Field Analysis and Geology
- System Design
- Controls Design
- Piping and Ducting Design
- System Installation
- System Commissioning
- Servicing and Troubleshooting
- LO Electrical Endorsement



For more information contact:
Apprenticeship Office
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250-762-5445 ext 4347 or 4880