

THE RIGHT SKILLS ► A PROVEN ADVANTAGE

CERTIFIED GEOTHERMAL TECHNICIAN

Credential Issued:

ITA Certificate of Qualification (Certified Geothermal Technician)
(Persons completing a formal apprenticeship also receive a Certificate of Apprenticeship)

Occupational Description:

“Certified Geothermal 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 Duration & Structure:

The program will be delivered in a variety of formats combining in-school and work-based training, all designed to meet the competency standards and profile defined by the industry, and will generally take 2 years to complete. The program includes:

- In-school: 400 hours (12 weeks)
- Work-based: 3000 hours

Program Completion Requirements:

Successful completion of in-school technical training:
(Requirement can be met through challenging a level exam where available.)

- **Level 1** practical assessments and written examination
- **Level 2** practical assessments and written examination

Completion of 3000 workplace hours

Recommendation for Certification signed by the Sponsor and a Certified Geothermal Technician or equivalent if the Sponsor is not credentialed.

Program Challenge Requirements:

- 4500 documented hours of directly related work experience are required to challenge ITA Certificate of Qualification examination.
- During a challenge transition period which expires June 30, 2011, in lieu of writing the Certificate of Qualification examination to obtain a Certified Geothermal Technician Certificate of Qualification, ITA will accept the following combination of experience and training as proof of trade knowledge:
 - 6000 work-based hoursAND
 - current certification (accreditation) in Canadian GeoExchange Coalition’s “System Installer’s Course” and “Residential System Designer’s Course”

Program Pre-requisites:

- Recommended Education: English 11 and Mathematics 11; or equivalent proficiency tests.

Assessment Methods:

- In-school assessments (practical and written exams)
- Work-based assessments (practical)
- ITA Certificate of Qualification Exam

- **Level 1** and Level 2 exams available for challenge

Linkages to Other Credentials:***Cross Program Credit***

- Apprentices who have completed the Sheet Metal Worker Level 2, Plumber Level 2, or Refrigeration Mechanic Level 2 apprenticeship will, upon registration with the ITA as a Certified Geothermal Technician apprentice, receive credit for **Level 1** technical training and a maximum of 500 workplace training hours already logged in one of the of the above apprenticeships.
- Apprentices with technical training credit for **Level 1** Certified Heating Technician, upon registration with the ITA as a Certified Geothermal Technician trainee, will receive **Level 1** technical training credit towards the CGT program and 50% of logged workplace hours to maximum of 1000 hours already credited towards Certified Heating Technician.

Prior Learning Assessment:

Credit for industry training programs (Thermal Environmental Comfort Association; Canadian Hydronics Council; Canadian GeoExchange Coalition) will be available through a PLAR process and credit matrix.

Program Standards Documentation:

- Program Outline (2009)

Industry Program Standards Mechanism:

Residential Construction Industry Training Organization (RCITO) info@ritobc.ca

Program Providers:

Institution-based component of the program is delivered by public post-secondary institutions, private training institutions, and secondary schools that have been approved by ITA.

Technical Training Content:**Level 1 – Common Core**

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

Level 2 – Geothermal

Geothermal Aspects of the Heating Industry
Geothermal Heat Pump Systems
Field Analysis and Geology
System Design
Controls Design
Piping and Ducting Design
System Installation
System Commissioning
Servicing and Troubleshooting

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