



Ontario Building Operator Apprenticeship Program

Vision

To establish a national program that certifies building operators to a national standard of defined skills and knowledge. The program will be forward thinking and take into account the full spectrum of the skills required of an operator today and into the future.

Objective

Update the applicable standards for the Ontario apprenticeship program for Facility technicians. Upon the updating of the training and curriculum standards, encourage industry support of the Ontario program. As all three components of the program in Ontario come to fruition, begin to expand the program working with the various provincial bodies to encourage at least five additional provinces to adopt the program, or a form of the program. In so doing, lobby the federal government to then establish a Red Seal program which is a national skills/ knowledge standard for an industry that is accepted across Canada.

Overview

Ontario apprenticeship programs are administered through the Ontario Colleges of Trades. The individual trades have a Board that reports up through to a Divisional Board (Industrial) and then to the Board of the College of Trades. The individual Trade Board is made up of representatives from the industry.

The two apprenticeship programs currently in place are:

- Facilities Mechanic
- Facilities Technician

There is a motion put forward to change the name of the Facilities Technician to Building Operator and drop the facilities mechanic.

Both trades are considered non-compulsory meaning that you do not need a license to work in the field. As a result, participation is industry driven rather than legislatively driven.

A trade through the apprenticeship program is defined by two standards:

Training Standard – demonstration of skills defined by the standard as validated by a knowledgeable supervisor (journeyman). The training standard can be found at [http://www.collegeoftrades.ca/wp-content/uploads/FACILITIES-TECHNICIAN-255B-EN-TS.V300.FINAL .pdf](http://www.collegeoftrades.ca/wp-content/uploads/FACILITIES-TECHNICIAN-255B-EN-TS.V300.FINAL.pdf)

Curriculum Standard – demonstration of knowledge based on an educational requirement which ultimately is determined through a provincial exam. The curriculum standard can be found at http://www.collegeoftrades.ca/wp-content/uploads/CTS_FACILITIES_TECH_L1-CC_255W_255B_L2_L3_EN.pdf

It should be noted that this standard is the old standard as the updated standard has not been published as of February 1, 2018.

BOMI and BOMA have worked with the College to update both the Training Standard and the Curriculum Standard to reflect what is currently required within the field. The Training Standard via the Training Standard Log Book has been published while the new curriculum is still being vetted through the process before publication. The exam update will then follow the curriculum update.

Program

Companies interested in having employees sign on as apprenticeship with the College would first apply for membership with the College of Trades (if it is not currently a member)

Cost: \$120 per year

Complete a sponsorship agreement

The employee would also join as a member

Cost: \$60 per year

Implementing a Graduated Apprenticeship Grant for Employers

The Province recently adjusted their funding program to drive completion of the program rather than registration in the program referred to as Graduated Apprenticeship Grant for Employers (GAGE).

The GAGE is designed to encourage employers to ensure apprentices complete their training programs by providing the following employer grants:

- \$2,500 upon the apprentice's completion of level one;
- \$2,500 upon the apprentice's completion of level two;
- \$3,500 upon the apprentice's completion of level three; and
- \$4,700 upon the apprentice's attainment of certification (either through a certificate of apprenticeship or certificate of qualification if applicable).

Overview

For individuals to obtain their Certificate of Qualifications (C of Q) they need to complete the on-the-job training as well as the in-class educational component.

On the Job Training Requirements

7,280 Hours (3.5 years)

The apprentice will work through their log book with their supervisor validating when they reach various milestones (being able to complete the various tasks listed). It is anticipated that it will take 3.5 years with 3 blocks of in-class training inserted over the time period to bring the process to about 4 years.

In-class Training Requirements

720 Hours (3 blocks of 240 hours (6 weeks))

The current process involves apprentices taking a 6 week block of training 3 times over the course of the 4 years. The College is looking to modernize the process and we are proposing/encouraging the College through the trade board that in-class training is a non-starter within the trade. Employers are not willing to allow their employees to leave for 6 or more weeks at a time three times over a period of three years. We are proposing that the training not be done in classroom, rather on-site within the workplace (potential over the internet) and spread out over the year rather than in large blocks of time.

Exam

There are two ways in which individuals are eligible to write the exam. The first is they complete the Apprenticeship program and then challenge the exam. The second is they apply for a journeypersons class and they have their Trade Equivalency Assessment application approved. This method is designed for those who have exceeded the hours of experience and wish to challenge the exam without going through the apprenticeship process.

Successful completion of the exam will result in the apprentice receiving their C of Q.

Commitments

BOMI and BOMA are reaching out to companies to encourage them to sign up apprentices to start the process towards getting their Certificate of Qualifications (C of Q) as a building operator. With a strong base of apprentices in the program we will be able to move to update the educational offerings available through BOMI Canada, Colleges, etc. which will be based on the new curriculum. Further to this, with more commitment we can work to change the mode of delivery of the education to reflect the needs of the marketplace given that we are a non-compulsory trade.

While we are working in the province of Ontario to advance the industry's commitment and participation in the program, the framework of the program will be presented to the various provincial BOMA locals to encourage them to adopt the program and if necessary oversee the implementation within their respective province, until such time as the province accepts the program.

In the interim, while the educational material is created to respond to the curriculum, companies will benefit by having their employees work through the training log. The structure provided by the process will provide employers with a valuable tool to lead their new employees through a structured process that has defined objectives and outcomes. This will allow the industry to take advantage of the work already completed by the leaders of the industry as we work towards the ultimate goal of a national program.

Key Skill Sets

SKILL SET #	SKILL SET TITLE
U9065	Demonstrate Safe Working Practices and Procedures
U9066	Use and Maintain Tools, Equipment, and Devices
U9067	Prepare Work Orders to Schedule the Services of a Licensed or Qualified Journeyperson
U9068	Perform Preventive Maintenance
U9069	Operate and Maintain Air Conditioning and Ventilation Systems
U9070	Operate and Maintain Air Compressors
U9071	Operate and Maintain Chillers and Refrigeration Systems
U9072	Operate and Maintain Water Treatment Systems
U9073	Inspect and Verify Fire Suppression and Sprinkler Systems
U9074	Inspect, Verify and Log Emergency Power and Lighting Systems
U9075	Operate and Maintain Heating Systems
U9076	Operate and Maintain Pumps and Pumping Systems
U9077	Operate and Maintain Low-Pressure Boilers
U9078	Operate Electrical Systems
U9079	Operate and Maintain Control Systems and Instrumentation
U9080	Inspect and Monitor Plumbing
U9081	Monitor and Analyse Building Sustainability
U9082	Maintain Building Interior and Exterior
U9083	Perform Grounds Maintenance
U9084	Maintain Roofing
U9085	Establish and Maintain Customer Service
U9086	Coordinate Security and Life Safety

Curriculum Summary

The following is an example of the previous curriculum standards.

Level 1: Reportable Subjects – 8 Theory Hours – 163 Practical Hours – 77

Level 2: Reportable Subjects – 9 Theory Hours – 165 Practical Hours – 75

Level 3: Reportable Subjects – 7 Theory Hours – 179 Practical Hours – 61

Totals: Reportable Subjects – 24 Theory Hours – 507 Practical Hours – 213

Program Summary by Level

Level One – Common Core with Facilities Mechanic

Reportable Subject	Duration (hours)	
	Theory	Practical
1.1 Safety and Tools	25	5
1.2 Communications	18	6
1.3 Occupational Calculations	18	0
1.4 Plumbing	24	12
1.5 Facilities Maintenance	24	24
1.6 Electricity	30	12

1.7 Blueprint Practices	12	6
1.8 Brazing and Welding	12	12
	163	77

Level Two

Reportable Subject	Duration (hours)	
	Theory	Practical
2.1 Heating Systems	20	10
2.2 Compressed Air Systems	18	6
2.3 Pumping Systems	16	8
2.4 Plumbing 2	20	10
2.5 Electrical Systems	20	10
2.6 Fire and Emergency Systems	20	10
2.7 Water Treatment	12	6
2.8 Preventative Maintenance	15	3
2.9 Air Conditioning and Ventilation 1	24	12
	165	75

Level Three

Reportable Subject	Duration (hours)	
	Theory	Practical
3.1 Heating Systems 2	20	10
3.2 Air Conditioning and Ventilation	36	12
3.3 Chiller Systems and Refrigeration	36	12
3.4 Low Pressure Boilers	24	12
3.5 Sensing Devices	21	9
3.6 Power and Utilities Management	24	6
3.7 Project Management	18	0
	179	61

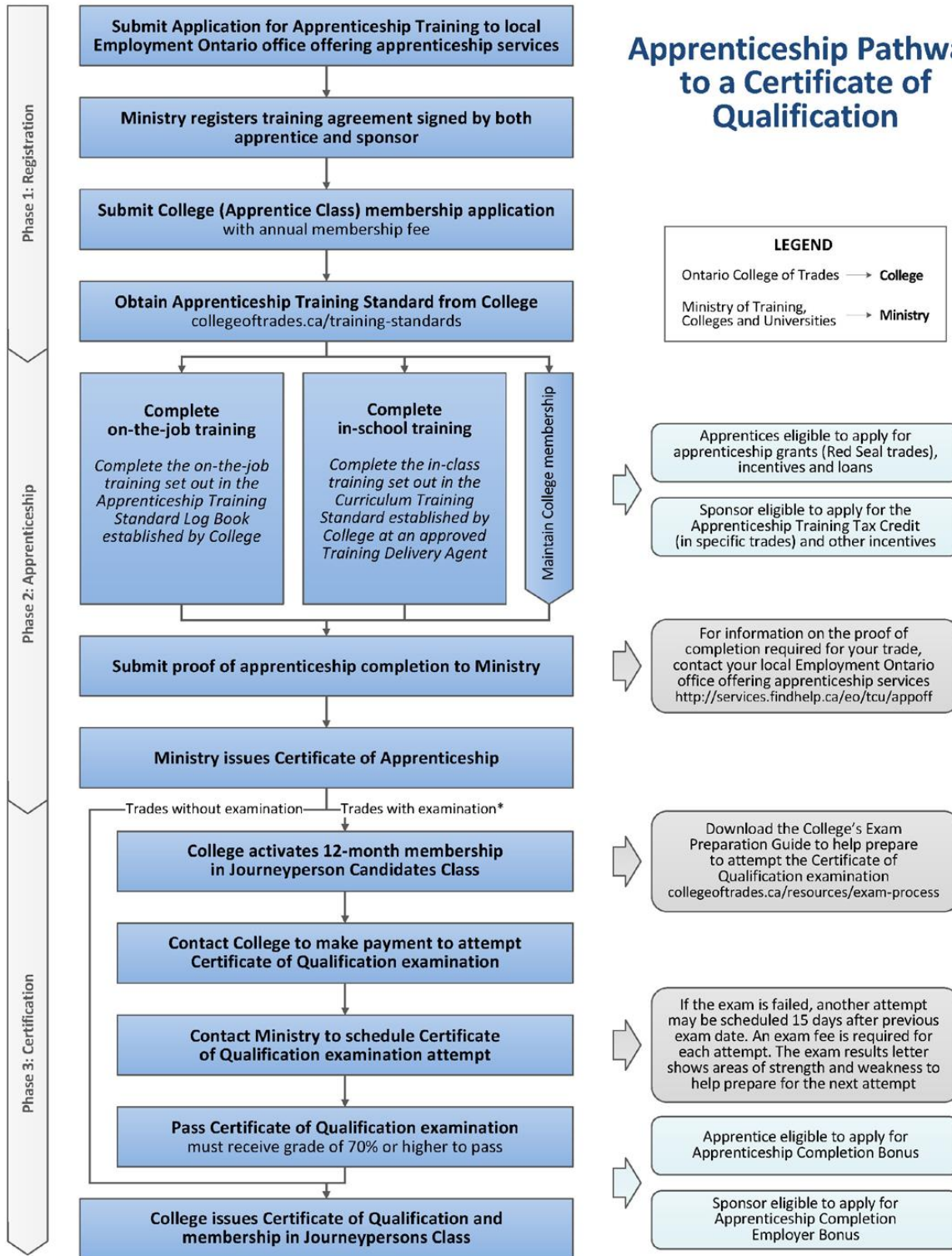
Evaluation

Regular evaluations of theory and application of apprentices learning achievements are performed throughout the program to ensure consistency in learning. Methods used for evaluation include actual “hands on” testing methods and practical demonstration of component skills, multiple choice, and short answer questions. Frequency of testing depends upon the materials being covered. Generally, evaluations are carried out at the end of each learning unit. Weekly testing is recommended for material involving major memory recall or the development/refinement of practical skills. In all cases, evaluations tend to be short and frequent, as opposed to the one major test or evaluation at the end of the course of study.

For More Information

To obtain more information feel free to contact Jim Preece at BOMI Canada 416-977-8700

Apprenticeship Pathway to a Certificate of Qualification



* For a list of trades subject to a certification examination, visit: collegeoftrades.ca/resources/exam-process