

# CONSTRUCTION BOILERMAKER APPRENTICESHIP

**Program:** CBMA

**Credential:** Apprentice Week Certificate

**Delivery:** Full-time

**Work Integrated Learning:** Apprentice Placement

**Length:** 2 Semesters

**Duration:** 720 hours

**Effective:** Winter 2023

**Location:** Owen Sound

## Description

A Construction Boilermaker builds, installs, erects, tests, maintains and repairs all types of boilers, tanks and pressure vessels, and performs all types of structural and plate work on dust, air, gas, steam, oil, water and other liquid-tight pressure vessels.

Construction Boilermaker is a trade regulated by the Ontario College of Trades and Apprenticeship Act, 2009. Qualified individuals may obtain a Certificate of Qualification, which confirms its holder has the skills, knowledge and experience that meet industry standards of practice for the trade. In order to complete an apprenticeship training program in the trade, individuals must become members of the Ontario College of Trades (the College), and apprentices must remain active members for the duration of their apprenticeship.

## Career Opportunities

Under the Government of Canada's National Occupational Classification list (NOC 7234), Construction Boilermakers are employed in a variety of settings/companies, such as boiler fabrication, manufacturing, and shipbuilding. Career opportunities include, but are not limited to, the following positions:

- Boiler Fitter
- Boilermaker
- Construction Boilermaker
- Marine Boilermaker
- Pressure Vessel Fabricator

## Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. work from fabrication drawings (prints) to fabricate components from steel or other materials;
2. use various metal forming machines such as rotary shears, punch presses and bending rolls;
3. test boiler systems for leaks, defects and other deficiencies to ensure they are operating safely and efficiently;
4. attach rigging and works with hoisting devices to lift components into place.

## External Recognition

Upon completing an apprenticeship, the Ministry of Labour, Training and Skills Development will issue an individual a Certificate of Apprenticeship. Upon passing the trade's certification examination and meeting the College's registration requirements, the individual may apply to become certified and registered as a journey person in the trade. Certain tasks that may be performed by a Construction Boilermaker legally require the individual to be certified by the Technical Standards and Safety Authority. In Ontario, the trade is part of the Interprovincial Red Seal Program—the national standard for the trade across Canada—under the title Boilermaker. [www.red-seal.ca](http://www.red-seal.ca)

## Admission Requirements

To qualify for an apprenticeship, applicants must:

- be at least 16 years of age
- have legal permission to work in Canada (for example, have a valid social insurance number)
- have a sponsor in Ontario

## Additional Information

An apprenticeship involves practical training provided on-the-job by a skilled worker, or trainer. The skills or competencies to be developed are set out by the trade's apprenticeship training standard and are recognized by the industry as being essential to the practice of the trade.

As these essential skills are developed, the apprentice's sponsor or trainer signs the relevant sections of the training standard to indicate that the apprentice has met the individual training objectives by demonstrating the skills required of a skilled worker, or journey person, in the trade.

To advance through the levels of the apprenticeship program, an individual must have completed all of the units outlined in the previous level (i.e. complete Level 1 before advancing to Level 2).

## Graduation Requirements

Apprentices must complete 720 hours of in-school training as outlined in the industry and Ministry of Labour, Training and Skills Development approved Curriculum Standard.

- Construction Boilermaker Level 1 - Basic (CBMB)
- Construction Boilermaker Level 2 - Intermediate (CBMI)
- Construction Boilermaker Level 3 - Advanced (CBMA)

## Graduation Eligibility

Students must successfully complete all required courses as noted below. Further details, if applicable, are noted under "Additional Information" above.

## Program Tracking Level 1 - Basic (CBMB)

Program Courses	Hours
CBMB 1000 Plant Systems and Ancillary Components 1	24
CBMB 1001 Trade Environment	21
CBMB 1002 Rigging and Hoisting 1	27
CBMB 1003 Prints and Layouts 1	63

CBMB 1004	Trade Tools and Equipment	39
CBMB 1005	Applied Trade Calculations 1	15
CBMB 1006	Welding and Cutting 1	51
<b>Hours</b>		<b>240</b>
<b>Total Hours</b>		<b>240</b>

## Level 2 - Intermediate (CBMI)

Program Courses		Hours
CBMI 1000	Plant Systems and Ancillary Components 2	57
CBMI 1001	Rigging and Hoisting 2	33
CBMI 1002	Prints and Layouts 2	75
CBMI 1003	Applied Trade Calculations 2	15
CBMI 1004	Welding and Cutting 2	60
<b>Hours</b>		<b>240</b>
<b>Total Hours</b>		<b>240</b>

## Level 3 - Advanced (CBMA)

Program Courses		Hours
CBMA 1000	Plant Systems and Ancillary Components 3	81
CBMA 1001	Rigging and Hoisting 3	12
CBMA 1002	Prints and Layouts 3	63
CBMA 1003	Applied Trade Calculations 3	18
CBMA 1004	Welding and Cutting 3	66
<b>Hours</b>		<b>240</b>
<b>Total Hours</b>		<b>240</b>

**Disclaimer:** *The information in this document is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs.*

*Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.*