



IRONWORKER (GENERALIST)

THIS BC PROGRAM HAS BEEN HARMONIZED AND IS BASED ON RSOS 2025

Occupation Description

Ironworker (Generalists) construct, install, maintain, and repair industrial, commercial, institutional, infrastructural, and residential structures made of steel, concrete, mass timber, and other materials. The Ironworker (Generalist) trade includes many aspects of building construction, such as structural, reinforcing, architectural/ornamental, mechanical, and specialized heavy lifting.

Ironworker (Generalists) are employed to work in a variety of projects, including on buildings, towers, bridges, stadiums, pre-engineered construction, wind turbines, solar panels, dams, and ornamental ironwork such as curtain walls, metal stairways, catwalks, railings, and metal doors. They erect scaffolding, cranes, hoists, and derricks on the construction site. They install conveyors, machinery, and automated material handling systems. They are involved in demolition and salvage duties involving all types of construction.

Ironworker (Generalists) prepare the construction site by assembling hoisting equipment. They unload reinforcing materials, structural and ornamental components, and organize the material for installation and hoisting. They inspect, select, and install rigging to components and direct crane operations. They position, align, and secure components using a variety of equipment and methods according to drawings and job specifications.

Ironworker (Generalists) join materials using a variety of methods, including bolting, pinning, welding, and tying. They place reinforcing material in a variety of reinforced products and structures, and perform post-tensioning operations.

Ironworker (Generalists) primarily work outdoors as a team and may be required to perform strenuous physical activities, often at heights and in remote locations. Due to their involvement in many aspects of building construction, experienced Ironworker (Generalists) may advance to supervisory and management positions.

For detailed information on the scope of knowledge and skills taught and assessed in this program refer to the Program Outline, available on the SkilledTradesBC website.

Pathways to Certification

In BC, an individual can become certified as an Ironworker (Generalist) by completing the Ironworker (Generalist) program or by challenging the certification. Apprenticeship programs are for individuals who have an employer to sponsor them and challenge programs are for individuals who have extensive experience working in the occupation and wish to challenge the certification.

Youth can begin an apprenticeship in high school through the Youth Train in Trades or Youth Work in Trades programs. The Youth Work in Trades program is available for any trade if an employer is willing to sponsor the student. Trades offered through the Youth Train in Trades vary by region; contact your local school district to find out which technical training programs are being offered through the Youth Train in Trades program in your region.

Foundation programs, where available, provide adults and youth who do not have work experience or employer sponsorship with an opportunity to gain the knowledge and skills needed to enter the occupation. Individuals who wish to enroll in a Foundation program must register directly with the training provider.



Recommended Education

The following education is **recommended** for apprentices entering this occupation. These are not prerequisites, but rather a desired level of skill or knowledge that will contribute to success in the industry.

- Grade 10 or equivalent including English 10, Mathematics 10 & Science 10
- Preferred: Grade 12
- See <https://curriculum.gov.bc.ca/> for a list of current BC High school course names

Note: Enrollment prerequisites may exist for technical training. Contact training provider. Prerequisites vary between training institutions.

SkilledTradesBC Registration

Individuals who wish to begin an apprenticeship in this program must register with SkilledTradesBC along with their sponsor. Application forms for all programs are available from the SkilledTradesBC website. Online registration is also available for most programs through the SkilledTradesBC website.

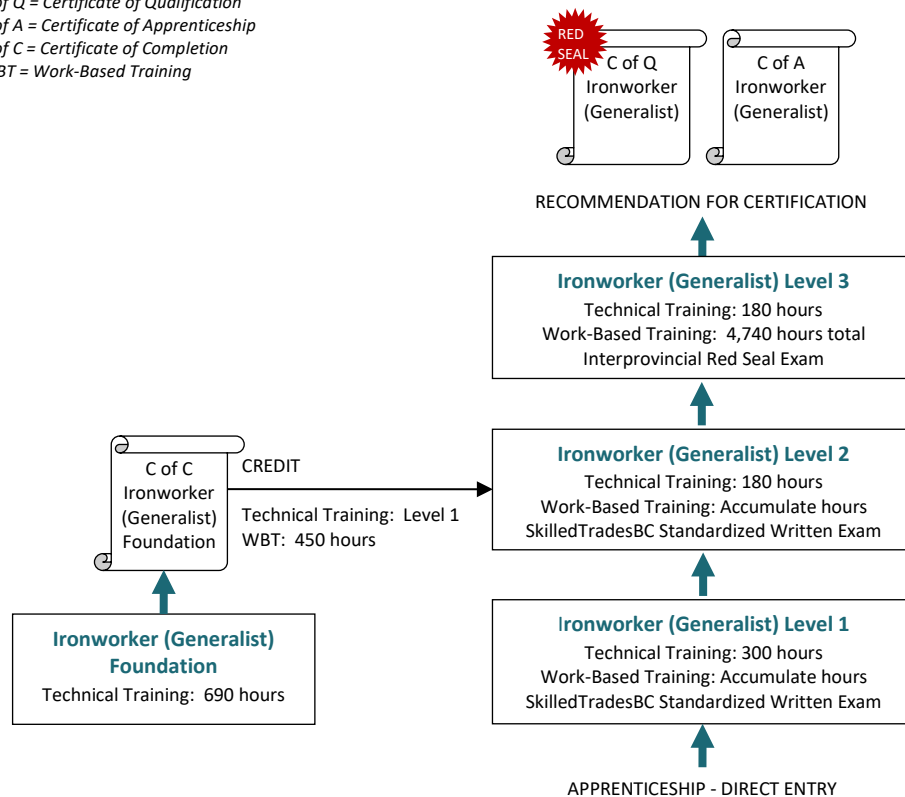
Those who wish to challenge the Ironworker (Generalist) certification must complete the Ironworker (Generalist) Challenge Application and submit it to SkilledTradesBC. Challenge applications are assessed for proof of workplace hours and scope of experience prior to acceptance of the individual into the Challenge pathway.



Apprenticeship Pathway

This graphic provides an overview of the Ironworker (Generalist) apprenticeship pathway.

*C of Q = Certificate of Qualification
C of A = Certificate of Apprenticeship
C of C = Certificate of Completion
WBT = Work-Based Training*



CROSS-PROGRAM CREDITS

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

None



Apprenticeship Program Standards

Credentials Awarded

- Ironworker (Generalist) – Certificate of Qualification with Interprovincial Red Seal endorsement
- Ironworker (Generalist) – Certificate of Apprenticeship

SkilledTradesBC Registration Prerequisites

- Agreement signed by the employer to sponsor the apprentice

Completion Requirements

Certification as an Ironworker (Generalist) is awarded upon successful completion of:

Requirement

Level of Achievement Required

Technical Training

Minimum 70% in each level of technical training:

- Level 1: 300 hours and SkilledTradesBC Standardized Written Exam
- Level 2: 180 hours and SkilledTradesBC Standardized Written Exam
- Level 3: 180 hours

Interprovincial Red Seal Exam

- Minimum 70%

Work-Based Training

- 4,740 hours

Recommendation for Certification

- Recommendation for certification signed by the Sponsor and an individual holding credentials eligible for sign-off authority

Program Duration

Duration varies depending on how training is delivered, but the program generally takes 3 years to complete.

The technical training requirement is typically met through block-release training (full-time, at school) delivered by a SkilledTradesBC-approved training provider. It can also be met through approved alternative training models (e.g., distance education, online, part-time) and/or level challenge where these options are available.

Sign-off Authority

Credentials eligible to sign-off on the Recommendation for Certification:

- Ironworker (Generalist) – Certificate of Qualification
- Ironworker (Generalist) – Interprovincial Red Seal endorsement
- SkilledTradesBC-issued letter authorizing supervision and sign-off of apprentices in this occupation

Challenging a Level

The following levels of technical training can be challenged for advanced placement in this program.

- None

Cross-Program Credits

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

Credential

Credit(s) Granted

None

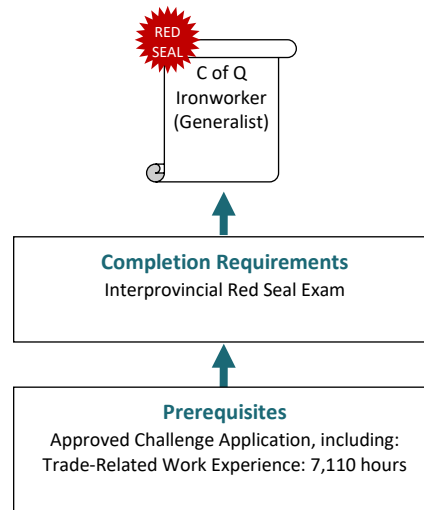
- N/A



Challenge Pathway

This graphic provides an overview of the Ironworker (Generalist) challenge pathway.

C of Q = Certificate of Qualification



CREDIT FOR PRIOR LEARNING

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

None

Challenge Program Standards

Credentials Awarded	Ironworker (Generalist) – Certificate of Qualification with Red Seal endorsement	
SkilledTradesBC Registration Prerequisites	An approved Challenge Application, which includes: <ul style="list-style-type: none"> 7,110 documented hours of directly related experience working in the occupation 	
Credit for Prior Learning	Individuals who hold the credentials listed below are considered to have met, or partially met, the prerequisites for challenging this program: <ul style="list-style-type: none"> None 	
Completion Requirements	Certification as an Ironworker (Generalist) is awarded upon successful completion of:	
	Requirement	Level of Achievement Required
	Interprovincial Red Seal Exam	<ul style="list-style-type: none"> Minimum 70%



Foundation Program

Refer to the Apprenticeship pathway diagram for this program to see how the Ironworker (Generalist) Foundation program leads to apprenticeship in this trade.

Foundation Program Standards

Credentials Awarded Ironworker (Generalist) – Certificate of Completion

Enrollment Prerequisites Contact training provider. Prerequisites vary between training institutions

Completion Requirements A Certificate of Completion in this program is awarded upon successful completion of:

Requirement

Level of Achievement Required

Technical Training

- Minimum 70%

Program Duration

Duration varies depending on how training is delivered, but the program generally takes 23 weeks to complete, assuming 30 hours in school per week.

Credit toward Apprenticeship

Individuals who complete the Ironworker (Generalist) Foundation program will receive the following credit toward completion of the Ironworker (Generalist) apprenticeship program:

- Technical Training: Level 1
- Work-Based Training: 450 hours



Supporting Documents

Ironworker (Generalist) Program Outline (2026) – Defines the full scope of knowledge and skills required to competently perform the occupation in BC. Available from the SkilledTradesBC website.

Ironworker (Generalist) Red Seal Occupation Standard (2025) – Prepared by industry experts, under the guidance of the federal government, for Red Seal trades to define the national standard of competence for the trade. Available from the Red Seal website: www.red-seal.ca.

Contacts

SkilledTradesBC manages B.C.'s industry training and apprenticeship programs. Contact SkilledTradesBC Customer service if you have any questions regarding registration, examinations or certification for this program.

Telephone: 778-328-8700
Toll Free (within BC): 1-866-660-6011
Website: www.skilledtradesbc.ca

Fax: 778-328-8701
Email: customerservice@skilledtradesbc.ca

Revision History

The standards for this program were reviewed and/or updated on the dates below.

Program Standards Approved:	March 2002
Updated:	Jan 2006
Updated:	July 2010
Updated:	November 2011
Updated:	August 2016
Updated:	June 2025

Program Profiles are updated regularly. Visit www.skilledtradesbc.ca for the most current version.