Ironworker

SCHOOL OF MANUFACTURING & AUTOMATION

Overview

Learn to fabricate, construct and join scaffolding, structural steel buildings, bridges, ornamental ironwork and pre-cast structures.

Ironworkers build structural components, reinforce steel, post-tension tendons, install conveyors and robotic equipment and sometimes perform reconstructive work on existing structures.

While on the job, you'll perform some of the following duties:

- read blueprints
- arrange steel pieces so they can be lifted as needed
- set up scaffolding, construction cranes, derricks and other equipment
- assemble rigging to move heavy equipment and materials
- direct crane operators with hand signals or radios
- position steel units, align holes and insert temporary bolts
- check alignments and join steel parts together by bolting or tack welding
- put together prefabricated metal structures
- cut, bend and secure steel bars or wire mesh to reinforce concrete
- install structural metalwork such as metal stairways and railings
- unload and install pre-cast components.

Traits, skills and aptitudes

Ironworkers are motivated, comfortable working at heights and enjoy a variety of tasks. If you like physically active work and working on a team, you'll excel in this line of work.

To succeed in this trade, you should:

- have stamina and physical strength
- have good coordination, agility and balance
- enjoy working outdoors in a wide variety of locations
- enjoy working cooperatively with other people
- act quickly and decisively
- be committed to safe work habits.

Credentials

Upon successfully completing the required working hours and technical training periods, you'll be awarded a certificate in addition to journeyperson status by Alberta's Apprenticeship and Industry Training.

Ironworker — Reinforcer and Ironworker — Structural/Ornamental are Red Seal Endorsed trades — a recognizable standard that allows tradespeople to work across Canada.

Admission requirements

To enter an apprenticeship, you must have the educational qualifications required or recommended education for the trade to which you apply.

Entrance requirements are monitored and set by Alberta Apprenticeship and Industry Training.

Minimum requirements

Successful completion of the following courses:

- English 10-2
- Math 10-3

OR

A pass mark in all five Canadian General Educational Development (GED) or Canadian Adult Education Credential (CAEC) tests

OR

Alberta Apprenticeship and Industry Training Entrance Exam

Recommended requirements

Apprentices with an Alberta High School Diploma that includes the following courses:

- English 30-2
- Math 30-3
- Physics 20 OR Chemistry 20 OR Science 20
- Related career and technology studies (CTS) courses

Costs

2026/27 tuition and fees

The following costs are effective as of July 1, 2026.

Ironworker

Period	Number of weeks	Tuition fees	Additional fees	Total
1	6	$942	$338	$1,280
2	6	$942	$338	$1,280
3	6	$942	$338	$1,280
4	6	$942	$338	$1,280
			Total cost:	**$5,120**

The estimated total cost of tuition and fees in each period of technical training.

Metal Building Systems Erector/Reinforcing

Period	Number of weeks	Tuition fees	Additional fees	Total
1	6	$942	$338	$1,280
2	6	$942	$338	$1,280
			Total cost:	**$2,560**

The estimated total cost of tuition and fees in each period of technical training.

Structural/Ornamental

Period	Number of weeks	Tuition fees	Additional fees	Total
1	6	$942	$338	$1,280
2	6	$942	$338	$1,280
3	6	$942	$338	$1,280
			Total cost:	**$3,840**

The estimated total cost of tuition and fees in each period of technical training.

Books and Supplies

This is a bring-your-own-device program with standard computer hardware and software requirements. See the specific requirements on our computers and laptops page.

Costs for books or modules, along with other items for classes, are:

- Period 1 (Common to all pathways): $200
- Period 2 (Reinforcing): $120
- Period 2 (MBSE and Structural): $160
- Period 3 (Structural): $160

We recommend that you purchase your learning resources on the first day of class at our Point Trotter campus.

This program requires personal protective equipment (PPE), which may be an added cost.