



# Ironworker

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

If you like working on a variety of tasks and enjoy working at great heights, you'll like a career as an ironworker. Ironworkers build structural components, reinforce steel, post-tension tendons, install conveyors and robotic equipment and sometimes perform reconstructive work on existing structures.

As an ironworker, you will be able to specialize in three different areas:

- **metal building systems erector:** you will fabricate, construct and join scaffolding. You are limited to work on two-story, steel-framed metal buildings generally referred to as pre-engineered buildings. You will erect pre-engineered buildings and sometimes perform reconstructive work on existing structures.
- **reinforcing:** you will place and tie reinforcing material, join scaffolding, and perform post-tensioning. As an ironworker-reinforcing tradesperson, you unload and stack steel units so each piece can be hoisted as needed, erect and install scaffolding, and select, cut, bend, position, and secure steel bars or wire mesh in concrete forms to reinforce the concrete and perform post-tensioning.
- **structural/ornamental:** you will fabricate, construct and join scaffolding, structural steel buildings, bridges, ornamental ironwork and pre-cast structures. You will erect structural steel components, 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
- unload and stack steel units so each piece can be hoisted as needed
- erect and install scaffolding, construction cranes, derricks and other hoisting equipment
- assemble rigging to move heavy equipment and materials and direct crane operators with hand signals or radios
- position steel units, align holes and insert temporary bolts
- check the alignments and join steel parts by bolting or tack welding them with an electric arc process
- assemble and erect prefabricated metal structures
- select, cut, bend, position, and secure steel bars or wire mesh in concrete forms to reinforce the concrete
- install ornamental and other structural metalwork such as curtain walls, metal stairways, railing and power doors
- unload and install pre-cast components.

## Is this the right fit for me?

Students who have the following characteristics see greater success in the trade:

- the ability to interpret blueprints
- an understanding of safe work practices and the knowledge to safely operate the tools of the trade
- to be able to work at heights
- the strength, stamina, and ability to use proper lifting techniques to lift items weighing in excess of 25 kilograms
- very good muscular coordination, agility and balance
- a willingness to travel to various work sites
- an inclination to work cooperatively with others
- the ability to act quickly and decisively in emergencies
- a commitment to safe work habits

## Credentials

Upon successfully completing the required working hours and apprenticeship education periods, graduates will be awarded journeyman 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.

# Costs 2022/23

## Tuition and fees\*

Period	Tuition fees	SAIT fees	Saitsa fees	Total
1	\$720	\$231	\$54	\$1,005
2	\$720	\$231	\$54	\$1,005
3	\$720	\$231	\$54	\$1,005

## SAIT fees

**Campus recreation fee:** \$49

**Lab and material fee:** \$82

**Student support fee:** \$50

**Student technology fee:** \$50

## Books and supplies\*

- Books or modules along with other items for class average out to \$300 per period.
- It is recommended that you do not purchase books or modules ahead of time as they might be outdated by the time you attend classes and they cannot be returned. Books and modules are provided at Point Trotter for purchase.

\*Tuition, fees, books and supply costs are subject to change.

[Learn more about paying for your apprenticeship >](#)