



# Industrial Mechanic (Millwright)

**SCHOOL OF MANUFACTURING & AUTOMATION**

## Overview

Learn how to install, maintain, repair and troubleshoot stationary industrial machinery and mechanical equipment in sites such as factories, production plants and recreational facilities.

The average day for an industrial mechanic is to read diagrams, schematic drawings and service manuals to determine work procedures on various different types of equipment. You'll operate rigging equipment and dollies to place heavy machinery parts as you assemble or disassemble equipment.

You'll fit bearings, align gears and shafts, attach motors and connect couplings and belts to precise tolerances to ensure the equipment will function properly.

Throughout the process, you'll align and test equipment, perform predictive and operational procedures and repair or replace defective parts. Hydraulic and pneumatic systems may need your repair or service.

During your apprenticeship training, you'll learn about welding, electrical work, hydraulics, and manual machining – dynamic skills that will allow you to tackle a variety of jobs on site.

## Traits, skills and aptitudes

Industrial mechanic (millwrights) enjoy re self-motivated and working independently. This line of work is most fulfilling for those who enjoy working on a wide variety of tasks and completing precision work.

To thrive in this career, it is important to have the following traits:

- the ability to visualize a layout by looking at plans and prints
- creative problem solver
- finding creative solutions to problems
- enjoy working on large machinery
- keeps up with trends in technology pertaining to the trade
- the ability to comprehend and troubleshoot mechanical systems
- mechanical aptitude
- good coordination and manual dexterity
- ability to work well with and supervise others
- commitment to safe work habits

## Credentials

Upon successfully completing the required working hours and apprenticeship education periods, graduates will be awarded an advanced diploma in addition to journey person status by Alberta's Apprenticeship and Industry Training.

Industrial mechanic (millwright) is a Red Seal Endorsed trade – 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 20-2
- Math 20-3
- Science 10

OR

A pass mark in all five Canadian General Educational Development (GED) 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 30 OR Chemistry 30 OR Science 30

## Costs

### 2024/25 tuition and fees

The following costs are effective as of July 1, 2024.

Period	Number of weeks	Tuition fees	Additional fees	Total
1	8	\$1,152	\$329	\$1,481
2	8	\$1,152	\$329	\$1,481
3	8	\$1,152	\$329	\$1,481
4	8	\$1,152	\$329	\$1,481
Total cost:				\$5,924

The estimated total cost of 2024/25 tuition and fees in each period of technical training.

### Books and Supplies

Books or modules, along with other items for classes, are approximately \$600 per period.

It's recommended you don't purchase books or modules ahead of time as they might be outdated by the time you attend classes, and they cannot be returned to the Bookstore.

Personal protective equipment (PPE) will be required for the program, which may be an additional cost to apprentices.

### 2023/24 tuition and fees

The following costs are effective until June 30, 2024.

Period	Number of weeks	Tuition fees	Additional fees	Total
1	8	\$1,056	\$319	\$1,375

Period	Number of weeks	Tuition fees	Additional fees	Total
2	8	\$1,056	\$319	\$1,375
3	8	\$1,056	\$319	\$1,375
4	8	\$1,056	\$319	\$1,375
Total cost:				\$5,500

The estimated total cost of 2023/24 tuition and fees in each period of technical training.