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.

As an industrial mechanic, you'll read diagrams and service manuals to figure out work procedures on different kinds of equipment. You'll operate rigging equipment and dollies to place heavy machinery parts as you assemble or disassemble equipment.

To make sure systems and equipment are working properly, you'll fit bearings and, align gears and shafts. You'll attach motors and connect couplings and belts to precise tolerances, align and test equipment, and make necessary adjustments. You'll also perform predictive and operational procedures and repair or replace defective parts.

During your apprenticeship training, you'll learn about tack welding and the service and repair of hydraulic and pneumatic systems.

Traits, skills and aptitudes

Industrial mechanics (millwrights) are motivated and work independently. This line of work is fulfilling if you enjoy working on a wide variety of tasks and completing precision work.

To succeed in this trade, you should:

- be able to visualize a layout by looking at plans and prints
- enjoy problem-solving and are creative
- enjoy working on large machinery
- keep up with trends in technology pertaining to the trade
- be able to understand and troubleshoot mechanical systems
- have mechanical aptitude
- have good coordination and manual dexterity
- be able to work well with and supervise others
- be committed to safe work habits.

Credentials

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

This 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 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 30 OR Chemistry 30 OR Science 30

Costs

2026/27 tuition and fees

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

Period	Number of weeks	Tuition fees	Additional fees	Total
1	8	$1,256	$357.50	$1,613.50
2	8	$1,256	$357.50	$1,613.50
3	8	$1,256	$357.50	$1,613.50
4	8	$1,256	$357.50	$1,613.50
			Total cost:	**$6,454.00**

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.

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

We recommend 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.