Refrigeration and Air Conditioning Mechanic

SCHOOL OF CONSTRUCTION

Overview

Learn to install, maintain, repair and overhaul industrial, commercial and residential refrigeration and air conditioning systems and their parts.

At installation sites, you'll work from drawings or verbal instructions to:

- mount or place system components
- assemble and install refrigeration or air conditioning systems and components
- install and calibrate related controls (including wiring) and start-up systems
- test refrigeration lines to detect leaks
- record the readings taken to ensure that the system is functioning satisfactorily.

Maintenance involves checking all system parts, lubricating moving parts and monitoring the refrigerant charge. When there is a malfunction, you'll diagnose the problem and fix the unit by replacing or repairing controls, electric wiring or other parts.

You may also repair heating equipment, troubleshoot gas-fired equipment and calibrate all gas-related controls.

Certification is required to work in this trade. This means that you must either be a registered apprentice working under the guidance of a certified journeyperson or you must be a certified journeyperson yourself.

Traits, skills and aptitudes

Refrigeration and Air Conditioning Mechanics are skilled tradespeople who like collaborating with others as well as working independently.

This line of work is most fulfilling if you enjoy working with your hands in various environments and developing specialized skills.

To succeed in this trade, you should:

- enjoy solving problems
- be a creative thinker
- have good coordination and manual dexterity
- have good customer service skills
- be adaptable to working in different environments
- have good physical strength and stamina
- have mechanical aptitude
- be able to work independently with little supervision or in a team environment
- be committed to maintaining safe working conditions.

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.

Graduates will get Gasfitter B and Refrigeration and Air Conditioning Mechanic Red Seal.

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 30-2
- Math 30-3
- Physics 20 or Chemistry 20

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
- Related career and technology studies (CTS) courses

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**

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.

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