

NOC 7313 - Refrigeration and Air Conditioning Mechanics

Description of occupation

Refrigeration and air conditioning mechanics install, maintain, repair and overhaul residential central air conditioning systems, commercial and industrial refrigeration and air conditioning systems and combined heating, ventilation and cooling systems. They are employed by refrigeration and air conditioning installation contractors, various industrial settings, food wholesalers, engineering firms and retail and servicing establishments. Transport refrigeration mechanics are included in this unit group (Statistics Canada, 2016).

Job title examples:

- central air conditioning mechanic
- commercial air conditioning mechanic
- heating and cooling mechanic
- heating, ventilation and air conditioning (HVAC) mechanic
- refrigeration and air conditioning mechanic apprentice
- refrigeration mechanic
- transport refrigeration mechanic

What is a NOC code?

The NOC system is based on categorizing occupations by their evaluated skill level and skill type. Each NOC code consists of four digits. The first digit denotes the occupation's skill type; the second denotes the occupation's skill level. Combined, these two digits define the NOC "Major Group" for all occupations with the same skill level and skill type. The final two digits are employed to narrow, or "drill down", to a specific occupational group. The third digit, combined with the "Major Group", defines the "Minor Group". The fourth digit identifies even further the specific occupation within the "Minor Group", referred to as the NOC "Unit Group". The NOC is a standard that classifies and describes occupations in the Canadian economy. It is the foundation for occupational statistics and labour market information (Ministry of Advanced Education and Skills Development, 2016).

Training and education required

- Completion of secondary school is usually required.
- Completion of a three- to five-year apprenticeship program

Or

- A combination of over five years of work experience in the trade and some high school, college or industry courses in refrigeration and air conditioning repair is usually required to be eligible for trade certification.
- Trade certification for refrigeration and air conditioning mechanics is compulsory in Ontario.
- Red Seal endorsement is also available to qualified refrigeration and air conditioning mechanics upon successful completion of the interprovincial Red Seal examination.

Refrigeration and air conditioning mechanics Programs related to the occupation are available at the following colleges in Ontario, as of September 2016:

- Durham College
- Seneca College
- Mohawk College
- Fleming College
- Algonquin College
- Centennial College
- George Brown College
- Georgian College
- Humber College
- St. Clair College
- Cambrian College
- La Cite Collegiale
- Fanshawe College
- Sheridan College
- Conestoga College

There are HVAC and HRAC techniques and technician's programs, as well as HRAC technology programs available at Ontario colleges. Generally, one-semester and one-year certificate courses (techniques) will provide an overview of the skills in heating and cooling. These programs can be built on with an HRAC technician course or students can enter the field directly. (Ontario Colleges, 2016).

An HRAC technician or technology program (generally two- and three-year diploma programs) will teach many of the skills of the techniques program, but will add to them with opportunities for deeper exploration and practical training through lab work. Students learn to design, build, maintain and service heating, air conditioning and refrigeration systems. (Ontario Colleges, 2016).

HRAC techniques, technician and technology programs require an Ontario Secondary School Diploma (OSSD) or equivalent, which includes a grade 12 mathematics credit. Senior physics and computer engineering, as well as grade 12 English and grade 12 business and communication credits, are often recommended. (Ontario Colleges, 2016).

On-The-Job Train Duration (for apprentices) - The College of Trades has identified 8,280 hours as the duration generally necessary for any apprentice to become competent in the skills required. There may be individual circumstances where the duration varies from this guideline (College of Trades, 2013).

In-School Training Duration - The College of Trades has identified 720 hours of in-school training as the duration generally necessary for an apprentice to complete the in-school curriculum for this program, except where an apprentice has been exempted from any level of that curriculum (College of Trades, 2013).

[What is an apprenticeship?](#)

An apprenticeship allows students to learn a skilled trade while gaining paid on-the-job work experience. Apprenticeship programs are usually offered through a college or vocational school and help prepare you for a career in the trades. The programs are structured to provide both classroom learning and on-the-job experience.

Although most of the learning in an apprenticeship is on the job, there is also an in-class component through a college. Apprentices typically spend 80-85% of their education and training in the workplace.

At the end of the apprenticeship training program, the apprentice becomes a journey person and is certified to work in the trade (Government of Canada, 2014).

To qualify for apprenticeship in Ontario you must:

- Be at least 16 years of age
- Have legal permission to work in Canada (i.e. have a valid social insurance number)
- Meet the educational requirements of your chosen trade
- Have a sponsor in Ontario (most sponsors are employers who will hire, train and pay you during your apprenticeship)

To apply for an apprenticeship, you must apply online through the Government of Ontario, Ministry of Advanced Education and Skills Development, once the criteria above is met.

Median and average wages and salaries in Durham Region

The average and median wages and salaries for individuals employed in the refrigeration and air conditioning mechanics occupation within Durham Region is as follows:

Median wages and salaries – **\$56,618**

Average wages and salaries - **\$53,647**

(Sourced from Statistics Canada 2011 data, custom purchased by the Durham Workforce Authority).

Average salaries in the field are typically between \$29,000 and \$32,000 per year. As you gain more certifications and your level of expertise increases, so should your pay. (Ontario Colleges, 2016).

Employed by Place of Work and Place of Residence

Place of Work (POW) – is defined as individuals employed within the Durham Region.

Place of Residence (POR) – is defined as Individuals who reside within the Durham Region.

The number of individuals employed within Durham Region (POW) in the refrigeration and air conditioning mechanics occupation is 185.

The number of Durham Region residents employed (POR) in the refrigeration and air conditioning mechanics occupation is 340.

(Sourced from Statistics Canada 2011 data, custom purchased by the Durham Workforce Authority).

Employment Prospects

This list below represents a sample of employment prospects for those seeking employment in refrigeration and air conditioning mechanics occupations within Durham Region.

Rodman's Heating & Air Conditioning – Ajax

Air Aid Mechanical – Clarington

Industrial Facilities Services – Oshawa

Climate Experts Heating & Cooling Inc. – Pickering

Limcan Walker/Certified Service Experts – Whitby

Therwood Heating & Cooling - Uxbridge