

# Manitoba Trades Booklet

Featuring Skills for Success





# Manitoba Trades & Technologies 2025/2026



# Table of Contents

## SKILLS CANADA - MANITOBA

|                    |    |
|--------------------|----|
| Partnerships       | 4  |
| Welcome            | 7  |
| Programs           | 8  |
| Skills for Success | 10 |

## CONSTRUCTION TRADES 15

|                                      |    |
|--------------------------------------|----|
| Bricklayer                           | 16 |
| Carpenter                            | 17 |
| Concrete Finisher                    | 18 |
| Construction Craft Worker            | 19 |
| Crane and Boom Truck Operator Trades | 20 |
| Floorcovering Installer              | 21 |
| Glazier                              | 22 |
| Insulator (Heat & Frost)             | 23 |
| Ironworker (Generalist)              | 24 |
| Landscape Horticulturalist           | 25 |
| Lather (Interior Systems Mechanic)   | 26 |
| Painter and Decorator                | 27 |
| Pre-Engineered Building Erector      | 28 |
| Roofer                               | 29 |
| Sloped Roofer                        | 30 |

## MANUFACTURING TRADES 33

|                                        |    |
|----------------------------------------|----|
| Boilermaker                            | 34 |
| Cabinetmaker                           | 35 |
| CNC Machinist                          | 36 |
| Instrumentation and Control Technician | 37 |
| Machinist                              | 38 |
| Pork Production Technician             | 39 |
| Tool and Die Maker                     | 40 |
| Water and Wastewater Technician        | 41 |
| Welder                                 | 42 |

## MECHANICAL / ELECTRICAL TRADES 45

|                                             |    |
|---------------------------------------------|----|
| Powerline Technician                        | 45 |
| Construction Electrician                    | 46 |
| Gasfitter                                   | 47 |
| Industrial Electrician                      | 48 |
| Industrial Mechanic (Millwright)            | 49 |
| Plumber                                     | 50 |
| Power Electrician                           | 51 |
| Refrigeration and Air Conditioning Mechanic | 52 |
| Sheet Metal Worker                          | 53 |
| Sprinkler Fitter                            | 54 |
| Steamfitter-Pipefitter                      | 55 |

## SERVICE TRADES 57

|               |    |
|---------------|----|
| Baker         | 57 |
| Cook          | 58 |
| Electrologist | 59 |
| Esthetician   | 60 |
| Hairstylist   | 61 |

## TRANSPORTATION TRADES 63

|                                               |    |
|-----------------------------------------------|----|
| Agricultural Equipment Technician             | 64 |
| Aircraft Maintenance Journeyperson            | 65 |
| Auto Body Collision Technician                | 66 |
| Automotive Refinishing Technician             | 67 |
| Automotive Service Technician                 | 68 |
| Diesel Engine Mechanic                        | 69 |
| Gas Turbine Repair and Overhaul Technician    | 70 |
| Heavy Duty Equipment Technician               | 71 |
| Marine and Outdoor Power Equipment Technician | 72 |
| Parts Technician                              | 73 |
| Railway Car Technician                        | 74 |
| Recreation Vehicle Service Technician         | 75 |
| Transport Trailer Technician                  | 76 |
| Truck and Transport Mechanic                  | 77 |

## RED SEAL 78

## BENEFITS OF APPRENTICESHIP 79

## HIGH SCHOOL APPRENTICESHIP PROGRAM (HSAP) 80

## GRANTS AND INCENTIVES 81

## TECHNOLOGIES 83

|                                                                             |    |
|-----------------------------------------------------------------------------|----|
| Architectural / Building Engineering Technologist                           | 84 |
| Electrical Engineering Technologist                                         | 85 |
| Electronic Engineering Technologist                                         | 86 |
| Environmental Protection Technologist                                       | 87 |
| Geomatics Engineering Technologist                                          | 89 |
| Instrumentation and Control Engineering Technologist                        | 89 |
| Mechanical Engineering Technologist                                         | 90 |
| Municipal Engineering Technologist                                          | 92 |
| Structural Engineering Technologist                                         | 92 |
| The Certified Technicians and Technologists Association of Manitoba (CTTAM) | 93 |

# Partnerships & Sponsors

## FUNDING PARTNERS

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Sheet Metal Workers International Local 511

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# Welcome



## WELCOME from the Executive Director

When you think of the skilled trades, what comes to mind? How about challenging and rewarding career options, technologically advanced, hands-on learning and training opportunities and competitive wages! The **Manitoba Trades Booklet** is here to dispel the myths and replace them with an encouraging set of facts.

Consider this booklet as a companion on the road to making an informed career decision, or in discussion with your child or student(s).

Manitoba's continuing competitiveness in the global marketplace depends on attracting and retaining qualified workers in the skilled trades. As a result, there is an increasing number of jobs available in the skilled trades. This means greater job opportunity and job security.

**Skills Canada Manitoba** is committed to letting young people know the facts about the exciting opportunities that exist in the skilled trades and technologies field. Please use this booklet as a source of information about viable first choice career options. In some cases, you may not have realized the opportunities that existed.

**Skills Canada Manitoba** is reaching new heights. We build awareness with youth through our programs such as the **In-School Program®**, **Northern In-School Program**, **the Cardboard Boat Race**, **Extreme Sledding**, **a Model Wind Turbine Competition**, **a Skilled Trades and Technology Showcase**, **Young Women's Conferences**, **Youth in Manufacturing**, **Skills Manitoba Competition**, **Northern Programs** and equip them with the tools to succeed. We combine our efforts with partnerships in education, industry and government and the outcomes are remarkable; youth advocating the benefits of apprenticeships; educators experiencing growth in apprenticeship programs; employers seeking skilled apprentices and government committing to vibrancy in Manitoba's future.

I hope that you find this book informative and helpful as you consider career opportunities in the skilled trades and technologies. We hope to share these opportunities with as many young people throughout Manitoba as possible. Please feel free to provide your feedback to [mariapa@skillscanada.com](mailto:mariapa@skillscanada.com).

If you have any questions, or would like more information, please contact **Skills Canada Manitoba** by phone at (204)927-0250 or visit the website, [www.skillsmanitoba.ca](http://www.skillsmanitoba.ca).

With warmest regards,

**Maria Pacella**  
Executive Director



**Skills**Compétences  
**Canada**  
Manitoba



**Skills Canada Manitoba** hosts many events throughout the year. Following are brief outlines of the **Winnipeg and surrounding area programs**.

## PROGRAMS WE OFFER



### In-School Program

An in-school presentation program for grades 5 to 12 that provides young people from across the province with information about the vast career opportunities in the skilled trades and technologies.



### Northern Manitoba Programs

A series of skills trades and technology programs for Northern Manitoba; the Northern In-School Program, Young Women's Conferences, Skills Trades and Technology Showcases, the Extreme Sledding and Trade and Technology Olympics.



### Skilled Trade and Technology Showcase

A one day program for grade 8 students, spent at a host school, where they have the opportunity to try hands on activities and to learn about different careers in trade and technology. The showcase is designed to educate students on a variety of occupations and opportunities that exist in Manitoba in trades and technology. The day focuses on hands on learning.



### Cardboard Boat Race

This program demonstrates the importance of studying science, math and technology in a fun, practical and interactive manner. It's amazing to witness a team of grades 10 to 12 students build a boat with cardboard, glue, duct tape and string and watch as they race their boat across a pool of water to the finish line.



### Young Women's Conference

A one day conference for young women to learn about trade and technology careers available in today's employment market. The conference highlights different vocations in trades and technology, introduces young women to women mentors working in the trades or technology field and provides employment and career planning information.



### **Model Wind Turbine Competition**

Grades 9 & 10 students across Manitoba have an opportunity to use their knowledge, skills, leadership, teamwork and ingenuity to design and build a working model wind turbine in this one day competition.



### **Extreme Sledding**

Grades 7 students, in teams of four will design and construct a sled and then participate in a race through a motor-cross style course.



### **Youth in Manufacturing**

Grades 7 - 10 students will be exposed to the manufacturing processes from design to the building and assembling of a product and ultimately the marketing and sales process.



### **Young Women in Technology Conference**

A one day conference geared for young women in Grades 6-8 to learn about technology careers available in today's employment market. The conference will highlight different areas of technology, including Civil Engineering, Computers, Electronics and Robotics. The conference aims to give youth the message that math, science and technology skills are increasingly more valuable, fun and financially rewarding.



### **Skills Manitoba Competition**

Our cornerstone event, is a one day event that provides young Manitobans the opportunity to showcase their talents in an Olympic style, province wide contest. Students compete in over 40 different hands on contests at the secondary and post secondary level that are designed (and judged) by industry professionals and educators. Winners of the provincial competition may form team Manitoba and compete against their peers at the Skills Canada National Competition, leading to the possibility of competing in the World Skills Competition.

# SKILLS FOR SUCCESS



ADAPTABILITY

## ADAPTABILITY

Just like animals need to ADAPT to their changing environments, we use adaptability to achieve our goals when expected or unexpected change occurs, by planning, staying focused, and overcoming obstacles. For example, you used your adaptability when we had to start learning from home.

### Why this skill is important

Things don't always go according to plan, so it's important for us to be flexible and adaptable to succeed when things change in our lives.



READING

## READING

Your ability to find, understand, and use information presented through words, symbols, and images. For example, we use this skill to learn the rules of a new boardgame by reading the instructions manual.

### Why this skill is important

Reading helps you to understand and interpret the meaning within the text. Reading is important in day-to-day activities, such as understanding stories, learning new things, and even ordering food at a restaurant.



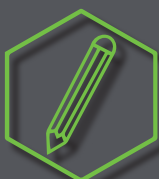
COLLABORATION

## COLLABORATION

Have you ever heard the saying "there is no I in TEAM"? Collaboration allows us to work in a team or group to reach a common goal. We always use collaboration when doing group or class projects, or on the sports field in gym class when playing as part of a team.

### Why this skill is important

Strong collaboration skills help you build and maintain positive relationships with others, in school, at work and in other parts of your life.



WRITING

## WRITING

Your ability to share information using written words, symbols, and images. For example, we use this skill to fill out our homework, write short stories, and chat with friends and family online.

### Why this skill is important

We write to communicate ideas and information to other people. In today's world, we require writing skills that are suitable for different situations including digital platforms.



COMMUNICATION

## COMMUNICATION

The act of giving, receiving, and sharing information – in other words, talking or writing, and listening or reading. For example, we use this skill when playing video games with friends to help us win the game.

### Why this skill is important

Strong communication skills help you share information in a way that others can clearly understand. You also need strong communication skills to listen to, pay attention to, and understand others.



CREATIVITY & INNOVATION

## CREATIVITY & INNOVATION

Your ability to imagine, develop, and encourage, ideas in ways that are new. For example, we use this skill to discover better ways of doing homework, school projects and our house chores by finding ways to make them more enjoyable.

### Why this skill is important

Creativity and innovation skills help you come up with new, unique, or “outside the box” ideas or to approach something differently than in the past, both at school and outside school.





DIGITAL

## DIGITAL

Your ability to use digital technology and tools to find, create and share information and content. For example, we use this skill to complete our homework, safely use social media, and play online games.

### Why this skill is important

Digital technology has changed the way you find and share information, solve problems, and communicate with others. Most jobs now use digital skills, and you need them when you apply other skills such as reading, writing and numeracy.



NUMERACY

## NUMERACY

Your ability to find, understand, use, and report mathematical information presented through words, numbers, symbols, and graphics. For example, we use this skill to perform calculations, do homework and play Monopoly!

### Why this skill is important

Numeracy skills are also needed in a wide variety of daily contexts, including managing your finances and making purchases.



PROBLEM SOLVING

## PROBLEM SOLVING

Your ability to identify, propose solutions, and make decisions. When you get stuck in a game or during a puzzle, you use your problemsolving skills to reach the end of the level or complete the puzzle.

### Why this skill is important

Strong problem-solving skills will help you gather the right information, identify, and solve problems, and make better decisions. As you learn from these experiences, you will strengthen your problem-solving skills and more quickly and effectively adapt to change.



## WHAT IS +1?

The +1 represents the Technical Skills necessary for skilled trade and technology careers. Technical Skills relate to expertise someone possesses that assist in the completion of a job or task. In general, these are abilities acquired through practice and learning. Most skilled trades require the hands-on ability to apply math, science and/or trade-specific expertise to a particular problem or challenge. Tradespeople not only need to be able to diagnose and understand the scope of a problem, but also apply practical, mechanical, or technical skills to its solution, using the tools of trade to carry out tangible work.

# NEW SKILLS CANADA MOBILE APP! NOUVELLE APPLICATION MOBILE DE COMPÉTENCES CANADA!

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SKILLS FOR  
SUCCESS!**



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COMPÉTENCES  
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L'Application est conçue pour les appareils iPhone®, iPad® et iPod Touch® et les appareils Android. Elle peut être téléchargée gratuitement dans l'App Store et Google Play.



**SKILLS  
COMPÉTENCES  
CANADA.COM**



# CONSTRUCTION TRADES



| Trade                                | HSAP | Red Seal | NOC Code | Compulsory Certification |
|--------------------------------------|------|----------|----------|--------------------------|
| Bricklayer                           | •    | •        | 72320    |                          |
| Carpenter                            | •    | •        | 72310    |                          |
| Concrete Finisher                    | •    | •        | 73100    |                          |
| Construction Craft Worker            | •    | •        | 75110    |                          |
| Crane and Boom Truck Operator Trades |      | •        | 72500    | *                        |
| Floorcovering Installer              | •    | •        | 75110    |                          |
| Glazier                              | •    | •        | 73111    |                          |
| Insulator (Heat & Frost)             | •    | •        | 72014    |                          |
| Ironworker (Generalist)              | •    | •        | 72105    |                          |
| Landscape Horticulturist             | •    | •        | 22114    |                          |
| Lather (Interior Systems Mechanic)   | •    | •        | 73102    |                          |
| Painter & Decorator                  | •    | •        | 73112    |                          |
| Pre-Engineered Building Erector      | •    |          |          |                          |
| Roofer                               | •    | •        | 73110    |                          |
| Sloped Roofer                        | •    |          | 73110    |                          |

**HSAP** – High School Apprenticeship Program. Allows students in high school to begin an apprenticeship program in grade 10. It is the responsibility of the student/apprentice to: find a qualified, insured employer willing to train an apprentice; complete the required apprenticeship application and send the application to the school contact/guidance counsellor; work with their employer and the school contact/guidance counsellor to make up a suitable on-the-job/academic timetable.

**Red Seal** – The Red Seal program is Canada's standard of excellence for skilled trades. Obtaining a Red Seal endorsement on a Certificate of Qualification acknowledges a journeyperson's competence and quality workmanship and ensures recognition of his/her certification across Canada. (Journeyperson status is obtained when Provincial/Red Seal endorsed certification in that trade is achieved.)

**NOC** – National Occupational Classification code system

**Compulsory or Voluntary Certification** – Trades in Manitoba are either designated as Compulsory Certification or Voluntary. Nine of the 50+ trades in Manitoba are classified as Compulsory Certification. Tradespersons are not legally entitled to work in compulsory certification trades in Manitoba unless they are a registered apprentice or certified journeyperson.

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72320 |
| Certification Voluntary |       |



## What do they do?

Using properly-selected mortars and precisely-cut stone, bricks, concrete blocks or other materials, Bricklayers build interior and exterior walls and paths and apply brick to chimneys and smokestacks. They are also responsible for preparing surfaces to be covered, such as caulking and cleaning, and placing damp proofing and masonry flashing.

## Potential Employers

- Construction companies
- Bricklaying contractors
- Self-employment

## What kind of education, training, requirements and experience are needed?

- Grade 12 recommended.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Masonry Institute

<http://www.manitobamasonry.ca>

### Bricklayers and Masons Union

<https://bacweb.org>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<https://www.mbcsc.com>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

### Construction Association of Rural Manitoba

<http://www.carm.ca>



# Carpenter

|      |   |
|------|---|
| HSAP | • |
|------|---|

|          |   |
|----------|---|
| Red Seal | • |
|----------|---|

|          |       |
|----------|-------|
| NOC Code | 72310 |
|----------|-------|

|                         |  |
|-------------------------|--|
| Certification Voluntary |  |
|-------------------------|--|

Learn more at

**Apprenticeship**

**MANITOBA**

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

Carpenters work on a wide variety of tasks associated with building and repairing whole, or parts of, buildings and other structures made of wood, wood substitutes, steel and other materials. Working in all areas of both the private and commercial construction industries, as well as in maintenance and renovations, carpenters crib basements, build house frameworks, walls, roofs and exterior finishes, and install doors, windows, flooring, cabinets, stairs, handrails, panelling, moulding and ceiling tiles. They are also responsible for building concrete forms, scaffolding, bridges, trestles, tunnels, shelters, towers and other structures.

## Potential Employers

- Construction contractors
- Custom cabinet shops
- Furniture manufacturers
- Self-employment

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Manitoba Home Builders Association**

<http://www.homebuilders.mb.ca>

**Carpenters Regional Council – Local 343**

<https://www.carpenters.org>

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Construction Sector Council Careers**

<https://www.mbcsc.com>

**Merit Contractors Association of Manitoba**

<http://www.meritm.ca>

# Concrete Finisher

|      |   |
|------|---|
| HSAP | • |
|------|---|

|          |   |
|----------|---|
| Red Seal | • |
|----------|---|

|          |       |
|----------|-------|
| NOC Code | 73100 |
|----------|-------|

|                         |  |
|-------------------------|--|
| Certification Voluntary |  |
|-------------------------|--|

Learn more at

**Apprenticeship**

**MANITOBA**

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

Concrete Finishers plan, prepare, place and finish concrete on many different types of residential, industrial and commercial projects including floors, walls, driveways, sidewalks, streets, highways and airport runways. They understand the properties and types of concrete and apply the proper techniques for the desired finish, using both traditional and contemporary tools. Other projects include restoration and resurfacing of damaged concrete.

## Potential Employers

- Construction companies
- General contractors
- Self-employment

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Chemistry.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**LiUNA Local 1258**

<http://www.local1258.ca>

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Construction Sector Council Careers**

<https://www.mbcsc.com>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

**Manitoba Heavy Construction Association**

<http://www.mhca.mb.ca>

**Manitoba Ready Mix Concrete Association**

<http://www.concretemanitoba.ca>

# Construction Craft Worker

|                                |              |
|--------------------------------|--------------|
| <b>HSAP</b>                    | •            |
| <b>Red Seal</b>                | •            |
| <b>NOC Code</b>                | <b>75110</b> |
| <b>Certification Voluntary</b> |              |



## What do they do?

Construction Craft Workers are responsible for site preparation and cleanup, setting up and removing access equipment, working on concrete and masonry, steel, wood and pre-cast erecting projects. They handle materials and equipment and perform demolition, excavation and compaction activities. They may also be responsible for site security and management of pedestrian and vehicular traffic. They are usually found working on a variety of structures including residential, commercial and industrial buildings, as well as hydroelectric dams, roadways, bridges and railways. In some areas, they may also work on utility, landscape and pipeline projects.

## Potential Employers

- Construction site contractors
- Private, Municipal, Provincial or Federal governments

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Construction Association of Rural Manitoba

<http://www.carm.ca>

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### LiUNA Local 1258

<http://www.local1258.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Crane and Boom Truck Operator Trades

HSAP

Red Seal

NOC Code 72500

Certification Compulsory

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

There are three trades related to operating cranes and boom trucks: Boom Truck Hoist Operator, Mobile Crane Operator, and Tower Crane Operator. A Crane Operator operates and maintains specific types of cranes or draglines that lift, move, position, or place machinery, equipment and other large objects. This does not apply to equipment used exclusively for fire fighting. Operators use mobile cranes, boom trucks and tower cranes to lift, move, position, unload and reload materials and equipment at construction sites, on offshore oil rigs, in rail yards, docks and plants.

## Potential Employers

- Construction contractors
- Railways
- Public works departments
- Industrial cargo handling companies

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Science.
- Completion of a two to three - year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- Red Seal certification is available for Mobile Crane and Tower Crane Operator. Boom Truck Operator is provincially certified.

## For more information

**Manitoba Heavy Construction Association**

<http://www.mhca.mb.ca>

**Crane and Hoisting Equipment Operator - Operating Engineers Local 987**

<http://www.oe987.mb.ca>

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Construction Sector Council Careers**

<https://www.mbcsc.com>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

**Winnipeg Construction Association**

<http://winnipegconstruction.ca>

# Floorcovering Installer

|                                |              |
|--------------------------------|--------------|
| <b>HSAP</b>                    | •            |
| <b>Red Seal</b>                | •            |
| <b>NOC Code</b>                | <b>75110</b> |
| <b>Certification Voluntary</b> |              |



## What do they do?

Floorcovering Installers assess, prepare, plan, repair, remove and install all kinds of floorcoverings such as carpet, resilient flooring, wood flooring and associated trim.

## Potential Employers

- Construction companies
- Sub-contractors
- Floorcovering retail and wholesale outlets

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### **Manitoba Home Builders Association**

<http://www.homebuilders.mb.ca>

### **Winnipeg Construction Association**

<http://winnipegconstruction.ca>

### **International Union of Painters and Allied Trades Local 739 District Council 17**

<http://www.dc17.ca>

### **Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

### **Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

### **Construction Association of Rural Manitoba**

<http://www.carm.ca>

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 73111 |
| Certification Voluntary |       |



## What do they do?

A Glazier cuts, prepares, fabricates and handles all glass materials for buildings and fixtures of all types. They set, attach, install and remove glass, and install and attach architectural metals or related substitutes in commercial and residential buildings.

## Potential Employers

- Commercial construction companies
- Residential construction companies -Architectural glass firms
- Interior design firms
- Retail glass shops
- Contact glass shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<https://www.mbcsc.com>

### International Union of Painters and Allied Trades Local 739 District Council 17

<http://www.dc17.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

### Construction Association of Rural Manitoba

<http://www.carm.ca>



# Insulator (Heat & Frost)

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72014 |
| Certification Voluntary |       |



## What do they do?

Heat and Frost Insulators read and interpret drawings and specifications to determine the requirements, amount and type of materials for any specific project. They measure, cut, fit, install and secure insulation in the required area, and remove or seal off old asbestos insulation.

## Potential Employers

- Construction companies
- Insulation contractors
- Industrial Plants

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### International Association of Heat and Frost Insulators and Allied Workers

Local 99-Manitoba

<http://www.insulators99.org>

### Thermal Insulation Association of Canada (TIAC)

<http://www.tiac.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

### Construction Association of Rural Manitoba

<http://www.carm.ca>

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<https://www.mbcsc.com>

# Ironworker (Generalist)

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72105 |
| Certification Voluntary |       |



## What do they do?

Ironworkers are skilled tradespeople with a range of skills. They erect structural steel components, reinforce steel, post tension tendons, install conveyors and robotic equipment and perform reconstructive work on existing structures and bridges. The full range of tasks as an Ironworker includes planning and co-ordination of equipment, materials and human resources; construction and demolition of structures; and storage and inventory of materials and equipment.

## Potential Employers

- Construction contractors
- Insulation contractors
- Industrial plants

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Science.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Ironworkers Union Local 728**

<http://www.ironworkers728.com>

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

# Landscape Horticulturist

|                                |              |
|--------------------------------|--------------|
| <b>HSAP</b>                    | •            |
| <b>Red Seal</b>                | •            |
| <b>NOC Code</b>                | <b>22114</b> |
| <b>Certification Voluntary</b> |              |



## What do they do?

Landscape Horticulturists design, construct, install and maintain landscaping. Projects include walkways, fences, decks, outbuildings, and irrigation systems. Responsibilities include maintaining inventory and facilities in greenhouses and garden retail centres and advising customers and clients on plants, plant materials, pesticides, fertilizers and other landscaping products.

## Potential Employers

- Landscape construction companies, nurseries and greenhouses
- Garden retail centers
- Yard and tree companies
- Golf courses
- Public works
- Public parks

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Biology.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Manitoba Golf Superintendents Association**

<http://www.mgsa.mb.ca>

**Golf Manitoba**

<http://www.golymb.ca>

**Manitoba Nursery Landscape Association**

<http://www.mbnla.com>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

# Lather (Interior Systems Mechanic)

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 73102 |
| Certification Voluntary |       |



## What do they do?

Interior Systems Mechanics install and apply lath, stucco wire, frameworks, vapour barrier, sound baffling, shielding, thermal and sound insulation, and access flooring systems to nearly all parts of the interior and exterior of a house or building. They also install decorative finishes and accessories.

## Potential Employers

- Construction contractors
- Renovation companies

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### Carpenters Regional Council - Local 343

<https://www.carpenters.org>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<https://www.mbcsc.com>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Painter & Decorator

|                                |              |
|--------------------------------|--------------|
| <b>HSAP</b>                    | •            |
| <b>Red Seal</b>                | •            |
| <b>NOC Code</b>                | <b>73112</b> |
| <b>Certification Voluntary</b> |              |



## What do they do?

Responsibilities of Painters and Decorators include blending and mixing paints, creating colour schemes, and using a variety of techniques to paint a wide range of surfaces. They also work with neutralizing agents, putty, varnish, lacquer, and stipple-texturing, and match and apply fabric or vinyl products to ceilings and walls.

## Potential Employers

- Construction contractors
- Building maintenance firms
- Painting contractors

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### **Construction Association of Rural Manitoba**

<http://www.carm.ca>

### **Manitoba Home Builders Association**

<http://www.homebuilders.mb.ca>

### **Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

### **Construction Sector Council Careers**

<https://www.mbcsc.com>

### **International Union of Painters and Allied Trades Local 739 District Council 17**

<http://www.dc17.ca>

### **Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

# Pre-Engineered Building Erector

HSAP •

Red Seal

NOC Code

Certification Voluntary

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

Pre-Engineered Building Erectors fabricate, construct and join scaffolding, and erect pre-engineered buildings. They are limited to work on one-story, steel framed buildings generally referred to as pre-engineered buildings.

## Potential Employers

- Construction contractors

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Winnipeg Construction Association**

<http://winnipegconstruction.ca>

**Construction Association of Rural Manitoba**

<http://www.carm.ca>

**Metal Building Contractors and Erectors Association**

<http://www.mbcea.ca>

**Ironworkers Union Local 728**

<http://www.ironworkers728.com>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

# Roofer

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 73110 |
| Certification Voluntary |       |



## What do they do?

Roofers estimate, prepare, repair and replace flat and sloped roofs. Roofers also install vapour barriers and insulation.

## Potential Employers

- Construction contractors
- Roofing contractors

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Science.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Homebuilders Association

<http://www.homebuilders.mb.ca>

### Roofing Contractors Association of Manitoba

<http://www.rcam.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Sheet Metal Workers and Roofers Local 511

<https://www.smart-local.org/smart-sheet-metal-local-511>

### Construction Sector Council Careers

<https://www.mbcsc.com>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>



# Sloped Roofer

**HSAP** •

**Red Seal**

**NOC Code** 73110

**Certification Voluntary**

Learn more at

**Apprenticeship**

**MANITOBA**

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

A Sloped Roofer is a person who installs, replaces and repairs sloped roofs using products such as shingles, asphalt, metal, tile, wood, slate, composite or rolled product roofing. Sloped Roofers install attic ventilation systems and flashing for sloped roofs, installs roof accessories, such as brackets and skylights, in and on sloped roofs and maintains and diagnoses issues with existing sloped roofs.

## Potential Employers

- Roofing companies
- Construction contractors

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Math and Science.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Manitoba Homebuilders Association**

<http://www.homebuilders.mb.ca>

**Roofing Contractors Association of Manitoba**

<http://www.rcam.ca>

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Sheet Metal Workers and Roofers Local 511**

<https://www.smart-local.org/smart-sheet-metal-local-511>

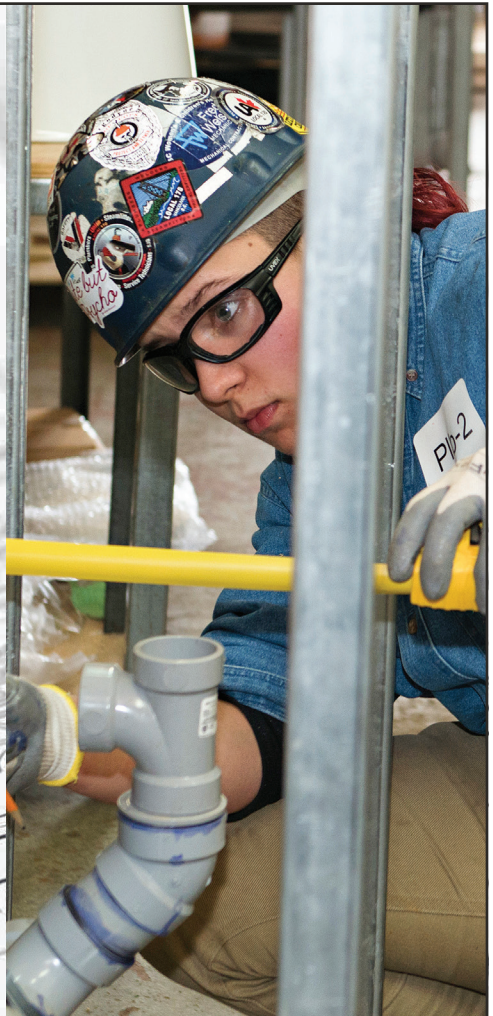
**Construction Sector Council Careers**

<https://www.mbcsc.com>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>

# BUILDING YOUR FUTURE TODAY



*For more information  
please contact:*

**Steve Ducharme** G.S.C.

PITC Training Director

Tel: (204) 956-7365

E-mail: [steve@pipingindustrytechnicalcollege.ca](mailto:steve@pipingindustrytechnicalcollege.ca)



# MANUFACTURING TRADES



| Trade                                  | HSAP | Red Seal | NOC Code | Compulsory Certification |
|----------------------------------------|------|----------|----------|--------------------------|
| Boilermaker                            | •    | •        | 72103    |                          |
| Cabinetmaker                           | •    | •        | 72311    |                          |
| CNC Machinist                          |      |          | 72100    |                          |
| Instrumentation and Control Technician |      | •        | 22312    |                          |
| Machinist                              | •    | •        | 72100    |                          |
| Pork Production Technician             | •    |          | 84120    |                          |
| Tool & Die Maker                       | •    | •        | 72101    |                          |
| Water and Wastewater Technician        | •    |          | 92101    |                          |
| Welder                                 | •    | •        | 72106    |                          |

**HSAP** – High School Apprenticeship Program. Allows students in high school to begin an apprenticeship program in grade 10. It is the responsibility of the student/apprentice to: find a qualified, insured employer willing to train an apprentice; complete the required apprenticeship application and send the application to the school contact/guidance counsellor; work with their employer and the school contact/guidance counsellor to make up a suitable on-the-job/academic timetable.

**Red Seal** – The Red Seal program is Canada's standard of excellence for skilled trades. Obtaining a Red Seal endorsement on a Certificate of Qualification acknowledges a journeyperson's competence and quality workmanship and ensures recognition of his/her certification across Canada.

(Journeyman status is obtained when Provincial/Red Seal endorsed certification in that trade is achieved.)

**NOC** – National Occupational Classification code system

**Compulsory or Voluntary Certification** – Trades in Manitoba are either designated as Compulsory Certification or Voluntary. Nine of the 50+ trades in Manitoba are classified as Compulsory Certification. Tradespersons are not legally entitled to work in compulsory certification trades in Manitoba unless they are a registered apprentice or certified journeyperson.

# Boilermaker

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72103 |
| Certification Voluntary |       |



## What do they do?

A Boilermaker assembles, installs and fits tanks, boilers and other storage equipment. They are involved with all aspects of tank and vessel construction and are trained to read and interpret blueprints, layout and cut steel plate, roll and cut sheet steel, assemble and install nozzles, rings, flanges and trays to finished units, weld using oxyacetylene and electric arc equipment, construct steam drums, refractories, air ducts, fans and other equipment for boiler units, dismantle rigging and hoisting equipment.

## Potential Employers

- Industrial, manufacturing and commercial facilities

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Science.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canadian Boilermakers Local 555**

[www.555.boilermaker.ca](http://www.555.boilermaker.ca)

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>



|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72311 |
| Certification Voluntary |       |



## What do they do?

Cabinetmakers produce furniture, cabinetry and architectural millwork from a variety of natural and manufactured materials for both commercial and residential markets. Cabinetmakers use traditional and modern tools and techniques to produce high quality and other wood specialties, including staircases, doors, furniture, moulding, joinery, veneers, inlays and laminates.

## Potential Employers

- Furniture manufacturing or repair companies
- Construction companies
- Cabinetmaking contractors
- Self-employment

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Home Builders Association

<http://www.homebuilders.mb.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<http://www.careersinconstruction.ca>

### Construction Association of Rural Manitoba

<http://www.carm.ca>

### Carpenters Regional Council - Local 343

<https://www.carpenters.org>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# CNC Machinist

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HSAP

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Red Seal

---

NOC Code      72100

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Certification Voluntary



## What do they do?

A CNC Machinist is someone who programs, sets up and operates metal-cutting computer numerical control machines. CNC Machinists are employed in machine shops, rail companies and by metal product, and farm machinery manufacturing and the aerospace industries.

You can only train to be a CNC Machinist after you complete either your machinist or tool and die certification.

## Potential Employers

- Canadian Manufacturers and Exporters (Manitoba)
- Canadian Tooling and Machining Association
- Machinist and Aerospace Workers International

## What kind of education, training, requirements and experience are needed?

- To become an apprentice in the trade, a person must hold a certificate of qualification in the Trade of Machinist or the Trade of Tool and Die Maker.
- Completion of a one-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

<https://www.manitoba.ca/apprenticeship/explore-trades/trade-profiles/cnc-machinist.html>

# Instrumentation and Control Technician

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HSAP

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Red Seal

---

NOC Code 22312

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Certification Voluntary

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

An Instrumentation and Control Technician is someone who installs, examines, removes, repairs and/or replaces items such as sensors, indicators, tubing and wiring. They also work on x-ray equipment, closed-circuit television systems, monitoring and alarm systems, gas analysis equipment and other lab equipment. Instrumentation and Control Technicians are employed by water sewage treatment plants, mining and large manufacturing companies.

## Potential Employers

- Water sewage treatment plants
- Mining companies
- Large manufacturing companies

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Manitoba Hydro**

<http://www.hydro.mb.ca>

**VALE**

<http://www.vale.com/canada>



# Machinist

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72100 |
| Certification Voluntary |       |



## What do they do?

Machinists set up and operate a variety of machine tools to precision cut, mill, turn, bore, drill or grind metal and similar materials into parts or products. They study specifications and drawings, calculate dimensions and tolerances, and then measure, set up and manufacture their projects.

## Potential Employers

- Machine shops
- Railways
- Metal products and farm machinery manufacturers
- Aerospace industry

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- You can also train to be a CNC Machinist after you complete either your machinist or tool and die certification.

## For more information

### Unifor

<http://www.unifor.org>

### Canadian Manufacturers and Exporters – Manitoba Chapter

<http://www.cme-mec.ca>

### Machinist and Aerospace Workers International

<http://www.iamaw.ca>

# Pork Production Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                |       |
| NOC Code                | 84120 |
| Certification Voluntary |       |



## What do they do?

Pork Production Technicians are certified to handle and care for pigs in the breeding, farrowing, nursery and finishing stages of pork production. Overall duties include caring for the breeding herd and growing pigs in their development from birth to market, including feeding, watering, care, stockmanship, and keeping a safe and sanitary barn environment.

## Potential Employers

- Specialized farms

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**National Farmers Union – Manitoba Region**

<http://www.nfu.ca>

**Manitoba Pork Council**

<http://www.manitobapork.com>

# Tool & Die Maker

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72101 |
| Certification Voluntary |       |



## What do they do?

A Tool and Die Maker fabricates, repairs and modifies custom-made prototypes and a wide variety of tools, jigs, fixtures, gauges and dies for use in industrial and manufacturing production. Jigs and fixtures are devices that hold work pieces while they are bored, stamped, milled or drilled. Dies are metal forms used to shape metal in stamping and forging operations.

## Potential Employers

- Aircraft, machinery and farm equipment manufacturers
- Machine shops
- Metal fabrication shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- You can also train to be a CNC Machinist after you complete either your machinist or tool and die certification.

## For more information

**Manitoba Aerospace Association Incorporated**

<http://www.mbaerospace.ca>

**Canadian Tooling & Machining Assoc. (CTMA)**

<http://www.ctma.com>

# Water and Wastewater Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                |       |
| NOC Code                | 92101 |
| Certification Voluntary |       |



## What do they do?

Water and Wastewater Technicians are vital to almost every facet of the water and wastewater industry, ensuring the safety of potable water and the safe processing of wastewater to meet public health, environmental and consumer concerns.

## Potential Employers

- Municipal water and wastewater facilities
- Environmental departments in mines
- Solid waste management facilities
- Government

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Science.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- Requires the successful completion of 1 year in each of the following four subcomponent trades: Water Distribution Operator, Water Treatment Operator, Wastewater Collection Operator, and Wastewater Treatment Operator.

## For more information

### Manitoba Water and Wastewater Association

[www.mwwa.net](http://www.mwwa.net)

### Canadian Water and Wastewater Association

[www.cwwa.ca](http://www.cwwa.ca)

# Welder

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72106 |
| Certification Voluntary |       |



## What do they do?

A certified Welder has the knowledge, ability and skills required to lay out, cut, prepare, repair, form, bend, install and join metals using a variety of welding equipment. Since the range of industrial items made of metal is extensive, Welders must not only be versatile but also highly skilled.

## Potential Employers

- Boiler and heavy machinery manufacturers
- Metal fabrication shops
- Aerospace industry
- Transportation companies
- Welding shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Science.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- In addition to a Red Seal endorsed certification-theory examination, a practical examination is required for this trade.

## For more information

**Manitoba Aerospace Association Incorporated**

<http://www.mbaerospace.ca>

**Canadian Welding Association / Association Canadienne de Soudage**

<http://www.cwbgroupp.org>

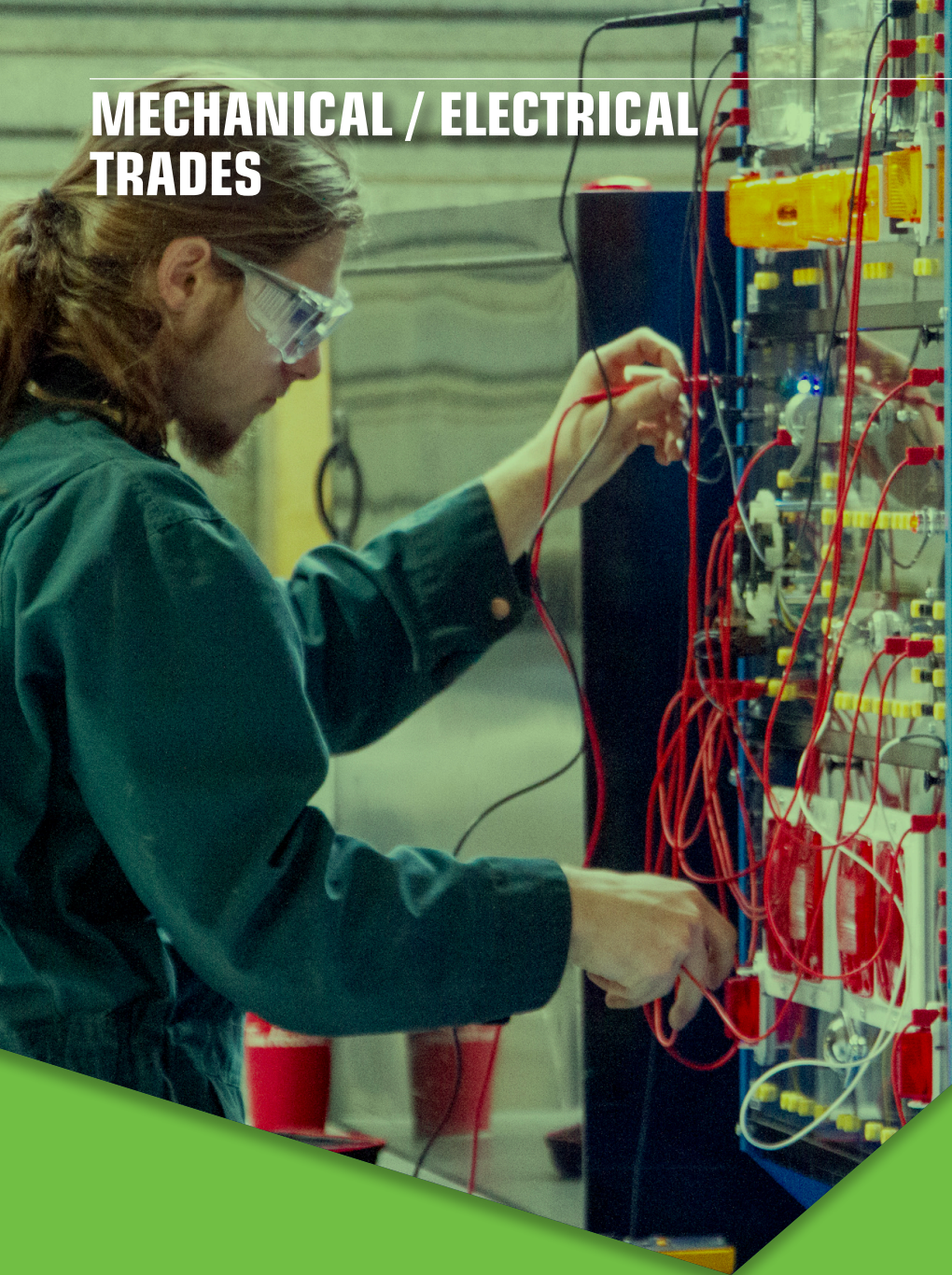
**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>





# MECHANICAL / ELECTRICAL TRADES



| Trade                                     | HSAP | Red Seal | NOC Code | Compulsory Certification |
|-------------------------------------------|------|----------|----------|--------------------------|
| Construction Electrician                  | •    | •        | 72200    | *                        |
| Gasfitter                                 | •    | •        | 72302    |                          |
| Industrial Electrician                    | •    | •        | 72201    | *                        |
| Industrial Mechanic (Millwright)          | •    | •        | 72400    |                          |
| Plumber                                   | •    | •        | 72300    |                          |
| Power Electrician                         | •    |          | 72202    |                          |
| Refrigeration & Air Conditioning Mechanic | •    | •        | 72402    | *                        |
| Sheet Metal Worker                        | •    | •        | 72102    |                          |
| Sprinkler Fitter                          | •    | •        | 72301    | *                        |
| Steamfitter – Pipefitter                  | •    | •        | 72301    | *                        |
| <b>Occupation</b>                         |      |          |          |                          |
| Powerline Technician                      |      | •        | 72203    |                          |

Powerline Technician is one of two Designated Occupations in Manitoba. Designated Occupations, do not offer an apprenticeship program but offer trades qualification as a pathway for experienced tradespersons to become certified.

For full details on the Occupation of Powerline Technician in Manitoba visit the trade profile pages at [manitoba.ca/apprenticeship](http://manitoba.ca/apprenticeship).

**HSAP** – High School Apprenticeship Program. Allows students in high school to begin an apprenticeship program in grade 10. It is the responsibility of the student/apprentice to: find a qualified, insured employer willing to train an apprentice; complete the required apprenticeship application and send the application to the school contact/guidance counsellor; work with their employer and the school contact/guidance counsellor to make up a suitable on-the-job/academic timetable.

**Red Seal** – The Red Seal program is Canada's standard of excellence for skilled trades. Obtaining a Red Seal endorsement on a Certificate of Qualification acknowledges a journeyperson's competence and quality workmanship and ensures recognition of his/her certification across Canada.

(Journeyman status is obtained when Provincial/Red Seal endorsed certification in that trade is achieved.)

**NOC** – National Occupational Classification code system

**Compulsory or Voluntary Certification** – Trades in Manitoba are either designated as Compulsory Certification or Voluntary. Nine of the 50+ trades in Manitoba are classified as Compulsory Certification. Tradespersons are not legally entitled to work in compulsory certification trades in Manitoba unless they are a registered apprentice or certified journeyman.



# Construction Electrician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72200 |
| Cerification Compulsory |       |

Learn more at  
**Apprenticeship**  
MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

A Construction Electrician plans, assembles, installs, repairs, tests and maintains electrical fixtures and systems that provide heat, light, power or control in residential, commercial and industrial buildings. Construction Electricians ensure that the electrical apparatus and systems people at home and in business depend on every day are safe and operate properly. Construction Electricians also troubleshoot and repair or reinstall electrical systems when required. They must have the experience to safely remove electrical services and systems as well as assess the suitability of existing services for future use. Many Construction Electricians specialize in specific types of installations such as new home construction or in the commercial and industrial sectors in hospitals or factories.

## Potential Employers

- Electrical contractors
- Mining companies
- Government
- Maintenance departments of large companies
- Railways
- Electrical utility companies

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training. .

## For more information

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<http://www.careersinconstruction.ca>

### Electrical Contractors Association of Manitoba

<http://www.ecamb.ca>

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### I.B.E.W. Local 2085

<http://www.ibew2085.com>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Gasfitter (Domestic Gasfitter \*prerequisite for 'Gasfitter')

|                        |       |
|------------------------|-------|
| HSAP                   | •     |
| Red Seal               | •     |
| NOC Code               | 72302 |
| Cerification Voluntary |       |



## What do they do?

There are two types of Gasfitters based on the license they obtain:

- Domestic Gasfitter (Class B)
- Gasfitter (Class A): commonly referred to as Commercial / Industrial

Gasfitters install, inspect, repair and maintain gas lines and gas equipment such as meters, regulators, heating units and appliances in residential, commercial and industrial establishments. This also includes testing and replacing defective equipment, attending to gas-escape calls and assisting in the investigation of gas fires and explosions, advising clients on safety features and maintenance of gas units, converting cars or appliances to use natural gas fuels, preparing work reports, reading and interpreting drawings and blueprints.

## Potential Employers

- Gas utility companies
- Gas servicing companies
- New home building and renovation
- Heavy industrial
- Institutional and commercial construction sectors

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Domestic Gasfitter (Class B): Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- Gasfitter (Class A): Completion of a four-year apprenticeship program or two additional years after completing Gasfitter (Class B).

## For more information

### Plumbers & Pipefitters Union Local 254

<http://www.ualocal254.ca>

### Mechanical Contractors Association

<https://www.mcamb.ca>

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### Construction Association of Rural Manitoba

<http://www.carm.ca>

### The Heating, Refrigeration and Air Conditioning Institute of Canada

<http://www.hrai.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Industrial Electrician

|                          |       |
|--------------------------|-------|
| HSAP                     | •     |
| Red Seal                 | •     |
| NOC Code                 | 72201 |
| Certification Compulsory |       |



## What do they do?

An Industrial Electrician plans, installs, tests, inspects, troubleshoots and services all types of industrial electrical equipment vital to the operation of commercial and industrial businesses. These include all equipment or components directly or indirectly exposed to electric power, such as motors, generators, pumps, lighting systems and associated electrical and electronic controls. They also do preventive maintenance and keep maintenance records.

## Potential Employers

- Electrical contractors
- Government
- Maintenance departments in factories, plants or mines

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canadian Electrical Contractors Association**

<http://www.ceca.org>

**Construction Association of Rural Manitoba**

<http://www.carm.ca>

**Construction Labour Relations Association of Manitoba**

<http://www.clram.ca>

# Industrial Mechanic (Millwright)

|                        |       |
|------------------------|-------|
| HSAP                   | •     |
| Red Seal               | •     |
| NOC Code               | 72400 |
| Cerification Voluntary |       |



## What do they do?

An Industrial Mechanic, also known as a Millwright, installs, tests, removes, repairs and services a wide variety of industrial machinery and equipment. Industry depends on Industrial Mechanics to install machinery and keep important equipment running smoothly and efficiently. Industrial Mechanics read blueprints, drawings and manuals to determine repairs and work procedures and perform preventative and operational maintenance.

## Potential Employers

- Construction contractors
- Manufacturing and mining companies
- Pulp and paper mills

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including a recommended course in Science.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Federation of Labour

<http://www.mfl.ca>

### Construction Association of Rural Manitoba

<http://www.carm.ca>

### Construction Labour Relations Association of Manitoba

<http://www.clram.ca>

### Winnipeg Construction Association

<http://winnipegconstruction.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Plumber

|                        |       |
|------------------------|-------|
| HSAP                   | •     |
| Red Seal               | •     |
| NOC Code               | 72300 |
| Cerification Voluntary |       |



## What do they do?

Plumbers plan, install, maintain, inspect and repair plumbing systems, fixtures, equipment and controls in residential and commercial buildings. Some Plumbers install piping systems in new home construction, commercial, industrial and public buildings. Others are experts in the retrofitting, repair and maintenance of existing systems. In smaller communities, Plumbers generally do a wider variety of plumbing and related tasks, including installing private sewage disposal systems and potable (drinking) water distribution systems. Plumbers must be able to read blueprints and project specifications to determine the layout for the plumbing and other materials. They may work with pipes made from iron, steel, lead, copper, plastic, glass and cement and need to know the particular characteristics of the substances being carried in the pipes.

## Potential Employers

- Construction companies
- Heating and plumbing contractors
- Maintenance departments of plants, factories, governments and schools

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Home Builders Association

<http://www.homebuilders.mb.ca>

### Plumbers and Steamfitters Local Union 254

<http://www.ualocal254.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<http://www.careersinconstruction.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Power Electrician

|                        |       |
|------------------------|-------|
| HSAP                   | •     |
| Red Seal               |       |
| NOC Code               | 72202 |
| Cerification Voluntary |       |

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

A Power Electrician is certified to install, test, repair and maintain electrical apparatuses in generating and converter stations and substations. This equipment is used to generate, transmit, distribute and convert electricity. One very important requirement of this trade, in addition to the technical knowledge, is the need to observe and practice safety at all times because of the hazards and dangers associated with electricity. Power Electricians work both inside and outside buildings and structures such as thermal and hydraulic generating stations, substations and other utility-owned buildings. Maintenance work takes place on the ground and at various heights requiring bucket-truck or ladder work.

## Potential Employers

- Electrical utility companies such as, Manitoba Hydro.

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canadian Union of Public Employees (CUPE) – Local 500**

<http://www.cupe500.mb.ca>

**International Brotherhood of Electrical Workers 2085**

<http://www.ibew2085.com>

**Manitoba Hydro**

<http://www.hydro.mb.ca>

# Refrigeration & Air Conditioning Mechanic

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72402 |
| Cerification Compulsory |       |

Learn more at  
**Apprenticeship**  
MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

In Manitoba, you can train to be a Refrigeration and Air Conditioning Mechanic OR a Commercial Refrigeration and Air Conditioning Mechanic. Mechanics in this trade install, repair, service, replace and maintain a variety of air conditioning and heating equipment, as well as ventilation and air exchange systems. Commercial Mechanics work in buildings such as apartments, restaurants, hospitals and ice rinks. Residential Mechanics work in private residences.

## Potential Employers

- Air Conditioning contractors
- Refrigeration equipment dealers
- Truck transportation firms
- Storage warehouses

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Science.
- Residential: Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- Commercial: Completion of a four-year apprenticeship program;
- Red Seal certification is available for Commercial. Residential is provincially certified.

## For more information

**Construction Labour Relations Association of Manitoba**

<http://www.clram.ca>

**Refrigeration and Air Conditioning Mechanic, Local 254**

<http://www.ualocal254.ca>

**Manitoba Building Trades Institute**

<http://www.mbtrades.ca>

**Construction Sector Council Careers**

<http://www.careersinconstruction.ca>

**Merit Contractors Association of Manitoba**

<http://www.meritmb.com>



# Sheet Metal Worker

|                        |       |
|------------------------|-------|
| HSAP                   | •     |
| Red Seal               | •     |
| NOC Code               | 72102 |
| Cerification Voluntary |       |



## What do they do?

After reading blueprints and orders, Sheet Metal Workers lay out, cut, shape and finish sheet metal using hand and power tools and join the sheet metal using welding tools, rivets, screws and folding.

## Potential Employers

- Construction, bus, farm equipment and aircraft manufacturers
- Metal fabrication shops
- Railways
- Air conditioning and heating contractors
- Roofing contractors

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Sheet Metal Workers and Roofers Local 511

<https://www.smart-local.org/smart-sheet-metal-local-511>

### Construction Sector Council Careers

<http://www.careersinconstruction.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

# Sprinkler Fitter

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72301 |
| Cerification Compulsory |       |



## What do they do?

A Sprinkler Fitter installs and maintains water, foam, carbon dioxide and dry chemical fire protection systems in buildings. Duties include reading drawings and specifications; planning system layouts; preparing written cost estimates; and communicating with customers.

## Potential Employers

- Mechanical construction firms
- Plumbing contractors
- Heating and air-conditioning companies
- Building developers

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Plumbers and Steamfitters Local Union 254

<http://www.ualocal254.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<http://www.careersinconstruction.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

### UA Local 254

<http://www.ualocal254.ca>

# Steamfitter - Pipefitter

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72301 |
| Cerification Compulsory |       |



## What do they do?

Steamfitter-Pipefitters fabricate and maintain piping systems used to carry gases, liquids and solids of all types. They work in many industrial settings, from manufacturers to water treatment plants. Duties include interpreting blueprints and drawings; sketching fabrication details; and working to codes and specifications.

## Potential Employers

- Pipeline and general construction contractors
- Thermal or steam generating plants
- Manufacturing factories
- Hospitals and schools
- Chemical plants, pulp mills and oil refineries

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Plumbers and Steamfitters Local Union 254

<http://www.ualocal254.ca>

### Manitoba Building Trades Institute

<http://www.mbtrades.ca>

### Construction Sector Council Careers

<http://www.careersinconstruction.ca>

### Merit Contractors Association of Manitoba

<http://www.meritmb.com>

### UA Local 254

<http://www.ualocal254.ca>

# SERVICE TRADES



| Trade             | HSAP | Red Seal | NOC Code | Compulsory Certification |
|-------------------|------|----------|----------|--------------------------|
| Cook              | •    | •        | 63200    |                          |
| Electrologist     | •    |          | 63211    | *                        |
| Esthetician       | •    |          | 63211    | *                        |
| Hairstylist       | •    | •        | 63210    | *                        |
| <b>Occupation</b> |      |          |          |                          |
| Baker             |      | •        | 63202    |                          |

Baker is one of two Designated Occupations in Manitoba. Designated Occupations, do not offer an apprenticeship program but offer trades qualification as a pathway for experienced tradespersons to become certified.

For full details on the Occupation of Baker in Manitoba visit the trade profile pages at [manitoba.ca/ap-prenticeship](http://manitoba.ca/ap-prenticeship).

**HSAP** – High School Apprenticeship Program. Allows students in high school to begin an apprenticeship program in grade 10. It is the responsibility of the student/apprentice to: find a qualified, insured employer willing to train an apprentice; complete the required apprenticeship application and send the application to the school contact/guidance counsellor; work with their employer and the school contact/guidance counsellor to make up a suitable on-the-job/academic timetable.

**Red Seal** – The Red Seal program is Canada’s standard of excellence for skilled trades. Obtaining a Red Seal endorsement on a Certificate of Qualification acknowledges a journeyperson’s competence and quality workmanship and ensures recognition of his/her certification across Canada.

(Journeyman status is obtained when Provincial/Red Seal endorsed certification in that trade is achieved.)

**NOC** – National Occupational Classification code system

**Compulsory or Voluntary Certification** – Trades in Manitoba are either designated as Compulsory Certification or Voluntary. Nine of the 50+ trades in Manitoba are classified as Compulsory Certification. Tradespersons are not legally entitled to work in compulsory certification trades in Manitoba unless they are a registered apprentice or certified journeyperson.

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 63200 |
| Certification Voluntary |       |



## What do they do?

Cooks plan menus, prepare a variety of foods according to health and safety regulations and manage commercial kitchens. While specific duties vary depending on the establishment, Cooks generally prepare meals and are responsible for food costing, safety and sanitation. Cooks also supervise kitchen helpers and food preparation personnel in food preparation, cooking and handling. Respect for diets due to culture, health or religion is important.

## Potential Employers

- Restaurants
- Hotels
- Hospitals and other health care institutions
- Central food commissaries
- Sports clubs, resorts and similar establishments

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canadian Culinary Federation, Winnipeg Branch**

<http://www.winnipegchefs.org>

**Manitoba Restaurant and Food Services Association**

<http://www.mrfa.mb.ca>

# Electrologist

|                          |       |
|--------------------------|-------|
| HSAP                     | •     |
| Red Seal                 |       |
| NOC Code                 | 63211 |
| Certification Compulsory |       |



## What do they do?

Electrologists perform pre-epilation (pre-hair removal) treatments, Electrolysis using galvanic and/or short-wave currents, and post-epilation (post-hair removal) treatments to remove unwanted hair for clients. Electrologists consult with clients to determine the treatment needed and to outline any risks. They also sterilize equipment and keep their work areas clean and sanitary, sometimes performing reception and management duties.

## Potential Employers

- Beauty salons
- Electrolysis studios
- Scalp treatment and hair replacement clinics and other similar establishments
- Self-employed

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a one-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- In addition to a provincial certification-theory examination, a practical examination is required for this trade.
- When registering as an apprentice, enrolment in or completion of technical training is required.

## For more information

**Federation of Canadian Electrolysis Associations**

<http://www.fcea.org>

# Esthetician

|                          |       |
|--------------------------|-------|
| HSAP                     | •     |
| Red Seal                 |       |
| NOC Code                 | 63211 |
| Certification Compulsory |       |



## What do they do?

The Esthetician trade is comprised of two sub-trades: Nail Technician and Skin Care Technicians. Nail Technicians perform manicures and pedicures and apply artificial nail products. Skin Care Technicians perform body treatments, facial treatments, make-up applications, depilatory hair removal, and lash and brow tint services. Estheticians have completed and performed services in both sub-trades.

## Potential Employers

- Beauty and esthetics salons
- Spas

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Esthetician: Completion of a two-year apprenticeship program;
- Nail Technician: Completion of a one-year apprenticeship program;
- Skin Care Technician: Completion of a one-year apprenticeship program;
- Approximately 80% paid on-the-job training and 20% in-class technical training.
- In addition to a provincial certification-theory examination, a practical examination is required for this trade.
- When registering as an apprentice, enrolment in or completion of technical training is required.



|                          |       |
|--------------------------|-------|
| HSAP                     | •     |
| Red Seal                 | •     |
| NOC Code                 | 63210 |
| Certification Compulsory |       |



## What do they do?

Hairstylists use a range of specialty equipment and products to cut, style, colour and chemically treat hair. Duties also include treating the hair, scalp and related skin conditions. Classroom instruction includes developing a working knowledge of workplace health and safety, as well as personal and public hygiene. Hairstylists enjoy working with, and meeting people. They need to be able to stand for long periods of time, maintain a well-groomed and professional appearance, and keep up-to-date with styles, supplies and technologies.

## Potential Employers

- Hairstyling salons
- Barber shops
- Retail product sales companies
- Theatre, film and television production companies

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.
- In addition to a Red Seal endorsed certification-theory examination, a practical examination is required for this trade.
- When registering as an apprentice, enrolment in or completion of technical training is required.

# TRANSPORTATION TRADES



| Trade                                       | HSAP | Red Seal | NOC Code | Compulsory Certification |
|---------------------------------------------|------|----------|----------|--------------------------|
| Agricultural Equipment Technician           | •    | •        | 72401    |                          |
| Aircraft Maintenance Journeyperson          | •    |          | 72020    |                          |
| Auto Body Collision Technician              | •    | •        | 72411    |                          |
| Automotive Refinishing Technician           | •    | •        | 72411    |                          |
| Automotive Service Technician               | •    | •        | 72410    |                          |
| Diesel Engine Mechanic                      | •    |          | 72401    |                          |
| Gas Turbine Repair and Overhaul Technician  | •    |          |          |                          |
| Heavy Duty Equipment Technician             | •    | •        | 72401    |                          |
| Marine & Outdoor Power Equipment Technician | •    | •        |          |                          |
| Parts Technician                            | •    | •        | 14401    |                          |
| Railway Car Technician                      | •    |          |          |                          |
| Recreation Vehicle Service Technician       | •    | •        | 72423    |                          |
| Transport Trailer Technician                | •    | •        | 72410    |                          |
| Truck and Transport Mechanic                | •    | •        | 72410    |                          |

**HSAP** – High School Apprenticeship Program. Allows students in high school to begin an apprenticeship program in grade 10. It is the responsibility of the student/apprentice to: find a qualified, insured employer willing to train an apprentice; complete the required apprenticeship application and send the application to the school contact/guidance counsellor; work with their employer and the school contact/guidance counsellor to make up a suitable on-the-job/academic timetable.

**Red Seal** – The Red Seal program is Canada's standard of excellence for skilled trades. Obtaining a Red Seal endorsement on a Certificate of Qualification acknowledges a journeyperson's competence and quality workmanship and ensures recognition of his/her certification across Canada.

(Journeyman status is obtained when Provincial/Red Seal endorsed certification in that trade is achieved.)

**NOC** – National Occupational Classification code system

**Compulsory or Voluntary Certification** – Trades in Manitoba are either designated as Compulsory Certification or Voluntary. Nine of the 50+ trades in Manitoba are classified as Compulsory Certification. Tradespersons are not legally entitled to work in compulsory certification trades in Manitoba unless they are a registered apprentice or certified journeyperson.

# Agricultural Equipment Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72401 |
| Certification Voluntary |       |



## What do they do?

An Agricultural Equipment Technician is certified to service, repair, assemble and maintain any agricultural equipment and attachments used for farming operations. To become an Agricultural Equipment Technician, you must possess a wide range of skilled technical abilities related to the repair and maintenance of agricultural equipment used in farming operations.

## Potential Employers

- Farm machinery industry
- Service shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canada West Equipment Dealers Assoc.**

<https://www.naeda.com>

**Manitoba Federation of Labour**

<http://www.mfl.ca>

# Aircraft Maintenance Journeyperson

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                |       |
| NOC Code                | 72020 |
| Certification Voluntary |       |



## What do they do?

An Aircraft Maintenance Journeyperson inspects aircraft, completes aircraft weight and balance reports, tows and taxis aircraft, and troubleshoots and repairs aircraft systems.

## Potential Employers

- Passenger and aircraft carriers
- Specialty repair shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

### Manitoba Aerospace Association Incorporated

<http://www.mbaerospace.ca>

### Central A.M.E. Association

<http://www.camea.ca>

### Canadian Council for Aviation and Aerospace

<http://www.avaerocouncil.ca>

# Auto Body Collision Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72411 |
| Certification Voluntary |       |



## What do they do?

Auto Body Collision Technicians restore the structural integrity of damaged vehicles by straightening frames, fixing minor body damage, removing badly damaged sections and priming and painting all repaired surfaces. As an Auto Body Collision Technician, you will also repair and/or replace vehicle glass and interior and exterior components of the vehicle. Duties also include verifying dimensional accuracy, system functions, passenger protection, proper alignment and proper handling.

## Potential Employers

- Autobody repair shops
- Auto dealerships
- Specialty automobile shops
- Public transit systems

## What kind of education, training, requirements and experience are needed?

- Grade 12 recommended.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Automotive Trades Association (Man.) Inc.**

<http://www.atamb.ca>

**Manitoba Motor Dealers Association**

<http://www.mmda.mb.ca>

**Manitoba Public Insurance**

<http://www.mpi.mb.ca>

# Automotive Refinishing Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72411 |
| Certification Voluntary |       |



## What do they do?

Automotive Refinishing Technicians sand, fill, prime, finish and paint motor vehicles. They handle exterior trim and hardware, apply decals, transfers and stencils, and clean and maintain spray guns, spray booths and other equipment.

## Potential Employers

- Autobody repair shops
- Auto dealerships
- Specialty automobile shops
- Public transit systems

## What kind of education, training, requirements and experience are needed?

- Grade 12 recommended.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Automotive Trades Association (Man.) Inc.**

<http://www.atamb.ca>

**Manitoba Motor Dealers Association**

<http://www.mmda.mb.ca>

# Automotive Service Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72410 |
| Certification Voluntary |       |



## What do they do?

An Automotive Service Technician diagnoses malfunctions in automobiles, buses and trucks and repairs them. They work on all parts of both gas-powered and diesel-powered motor vehicles, perform scheduled maintenance and advise customers on work performed, general vehicle conditioning and future repair requirements. Automotive Service Technicians also perform safety checks for licensing and insurance.

## Potential Employers

- Dealerships
- Garages
- Service stations
- Automotive specialty/retail shops
- Manufacturing companies
- Public transit systems

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Automotive Trades Association (Man.) Inc.**

<http://www.atamb.ca>

**Manitoba Motor Dealers Association**

<http://www.mmda.mb.ca>



# Diesel Engine Mechanic

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                |       |
| NOC Code                | 72401 |
| Certification Voluntary |       |



## What do they do?

Diesel Engine Mechanics diagnose, service, adjust, overhaul and maintain and test diesel engines and related equipment and components as well as related electrical and electronic systems. Much of the heavy equipment used in the construction, transportation and farming industries, such as bulldozers, cranes and tractors are powered by diesel.

## Potential Employers

- Diesel equipment or specialty and overhaul repair shops
- Manufacturing companies

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Railway Association of Canada**

<http://www.railcan.ca>

# Gas Turbine Repair and Overhaul Technician

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HSAP

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Red Seal

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NOC Code

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Certification Voluntary

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

A Gas Turbine Repair and Overhaul Technician works in a facility that has a dedicated engine overhaul, heavy maintenance or repair shop capable of disassembly, inspection and reassembly of internal engine components using engine manuals and engine-specific tooling. Much of the technician's work is hand work; consequently, manual dexterity and strong manual skills are important. Technicians must be able to use a wide range of hand and power tools.

## Potential Employers

- Aircraft Manufacturing Facilities

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math and Physics.
- Completion of a two-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canadian Council for Aviation and Aerospace**

<http://www.avaerocouncil.ca>

# Heavy Duty Equipment Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72401 |
| Certification Voluntary |       |



## What do they do?

A Heavy Duty Equipment Technician is certified to diagnose, troubleshoot, assemble, service, repair and maintain heavy duty equipment. This includes any mobile equipment and attachments used to construct buildings, roads or highways, logging or mining operations, and railway operations.

## Potential Employers

- Heavy construction companies
- Railways
- Companies involved in forestry, farming, oil and gas, material handling, landscaping and land clearing

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Canada West Equipment Dealers Assoc.**

<http://www.naeda.com>

**Manitoba Federation of Labour**

<http://www.mfl.ca>

# Marine & Outdoor Power Equipment Technician

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HSAP

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Red Seal

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NOC Code

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Certification Voluntary

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

A Marine and Outdoor Power Equipment Technician is certified to repair, service and maintain small gasoline and diesel powered equipment such as outboard and inboard motors, jet drives in boats and personal watercraft (PWC), stern drives, lawn and garden equipment, snowmobiles, all terrain vehicles (ATVs) and similar multi-wheeled vehicles and related trailers.

## Potential Employers

- Equipment distributors
- Retailers and rental companies
- Parks and recreation (landscaping maintenance and builders, golf courses, forestry companies)
- Original equipment manufacturers

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Mid-Canada Marine and Powersports Dealers Association**

[www.mmpda.ca](http://www.mmpda.ca)

# Parts Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 14401 |
| Certification Voluntary |       |



## What do they do?

Parts Technicians manage and sell parts for vehicles, appliance, machinery and equipment. They are responsible for maintaining parts storage systems, ordering parts for sale, tracking inventory, receiving orders and ensuring they are filled accurately. Parts Technicians also price parts and assist both the general public and other tradespeople in finding the parts they need.

## Potential Employers

- Automotive vehicle dealerships, service shops, tool cribs, warehouses and parts distribution outlets

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**The Manitoba Trucking Association**

<http://www.trucking.mb.ca>

# Railway Car Technician

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HSAP

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Red Seal

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NOC Code

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Certification Voluntary

Learn more at

**Apprenticeship**

MANITOBA

[manitoba.ca/apprenticeship/explore-trades](http://manitoba.ca/apprenticeship/explore-trades)

## What do they do?

Railway Car Technicians inspect, repair, replace and recondition mechanical or structural components and systems of freight cars and passenger coaches.

## Potential Employers

- Railway companies
- Public transportation companies
- Rail car repair facilities

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Automotive Trades Association (Man.) Inc.**

<http://www.atamb.ca>

**Manitoba Motor Dealers Association**

<http://www.mmda.mb.ca>

**Railway Association of Canada**

<http://www.railcan.ca>

# Recreation Vehicle Service Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72423 |
| Certification Voluntary |       |



## What do they do?

Recreation Vehicle Service Technicians are trained to inspect, test, replace and service all systems contained within a recreation vehicle, except for its engine and drive train. They work on systems such as propane, electrical, water, heating, braking, stabilizing and security systems and, therefore, have a broad base of knowledge and many different skills.

## Potential Employers

- Recreation vehicle dealerships, manufacturers and independent repair shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Recreation Vehicle Dealers Association of Manitoba**

<http://www.manitobarvda.com>

# Transport Trailer Technician

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72410 |
| Certification Voluntary |       |



## What do they do?

A Transport Trailer Technician is certified to service, repair, assemble and maintain transport trailers used to carry commercial or non-commercial goods as registered under The Highway Traffic Act. They work on all parts and systems of a transport trailer, including framework, body work, suspension, brakes, wheels, electrical, hydraulic, refrigeration and heating.

## Potential Employers

- Fleet repair shops
- Trailer dealerships
- General and specialized repair shops

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a three-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Automotive Trades Association (Man.) Inc.**

<http://www.atamb.ca>

**Manitoba Motor Dealers Association**

<http://www.mmda.mb.ca>

**Manitoba Trucking Association**

<http://www.trucking.mb.ca>



# Truck & Transport Mechanic

|                         |       |
|-------------------------|-------|
| HSAP                    | •     |
| Red Seal                | •     |
| NOC Code                | 72410 |
| Certification Voluntary |       |



## What do they do?

A Truck and Transport Mechanic is certified to service, repair, assemble and maintain transport trucks and buses, including those with a gross weight of 4,500 kilograms or more. Equipment registered to carry people, equipment or goods on a highway as designated under The Highway Traffic Act, are also included in this certification.

## Potential Employers

- Truck/transport dealerships
- Trucking firms
- Repair centres

## What kind of education, training, requirements and experience are needed?

- Grade 12 or equivalent including recommended courses in Applied or Pre-Calculus math.
- Completion of a four-year apprenticeship program: approximately 80% paid on-the-job training and 20% in-class technical training.

## For more information

**Manitoba Trucking Association**  
<http://www.trucking.mb.ca>

**Teamsters Local 979**  
<http://www.teamsters979.org>

## RED SEAL

The Canadian Council of Directors of Apprenticeship (CCDA) is responsible for the Interprovincial Standards "Red Seal" Program. The Red Seal program forms a partnership between the provincial, territorial and federal governments. Its goal is to provide skilled workers mobility across Canada by encouraging the standardization of training and certification programs. Red Seal certified workers can work anywhere in Canada where their trade is designated. They have qualified by passing industry developed interprovincial examinations that are based on the National Occupational Analysis.

### Red Seal Trades designated in Manitoba

- Agricultural Equipment Technician
- Auto Body and Collision Technician
- Automotive Refinishing Technician
- Automotive Service Technician
- Boilermaker
- Bricklayer
- Cabinetmaker
- Carpenter
- Concrete Finisher
- Construction Craft Worker
- Construction Electrician
- Cook
- Floorcovering Installer
- Gasfitter
- Glazier
- Hairstylist
- Heavy Duty Equipment Technician
- Industrial Electrician
- Industrial Mechanic (Millwright)
- Instrumentation and Control Technician
- Insulator (Heat and Frost)
- Ironworker (Generalist)
- Landscape Horticulturist
- Lather (Interior Systems Mechanic)
- Machinist
- Mobile Crane Operator
- Painter and Decorator
- Parts Technician
- Plumber
- Recreation Vehicle Service Technician
- Refrigeration and Air-Conditioning Mechanic
- Roofer
- Sheet Metal Worker
- Sprinkler Fitter
- Steamfitter-Pipefitter
- Tool and Die Maker
- Tower Crane Operator
- Transport Trailer Technician
- Truck and Transport Mechanic
- Welder

There are approximately 50 designated trades in Manitoba. Over 40 of these trades are Red Seal. There are nine compulsory certification trades, and the rest are voluntary.

### For more information about the Apprenticeship and the Red Seal program in Manitoba contact:

Apprenticeship Manitoba

100 - 111 Lombard Avenue, Winnipeg Manitoba R3B 0T4

Telephone: 204-945-3337 Toll-free in Manitoba only: 1-877-97TRADE (1-877-978-7233)

Fax: 204-948-2346 Website: [www.manitoba.ca/apprenticeship](http://www.manitoba.ca/apprenticeship)

## BENEFITS OF APPRENTICESHIP

Apprenticeship is a work-based post-secondary training program that leads to a Certificate of Qualification. Apprenticeship Manitoba provides apprenticeship programs for approximately 50 designated trades in Manitoba.

### **As an apprentice, you will:**

**Learn by doing.** Hands-on training is one of the most effective ways to build practical skills and confidence on the job.

**Be mentored by experts.** Journeypersons are highly skilled professionals who guide and support apprentices.

**Earn while you learn.** Apprentices receive paid work throughout their training, with wages increasing as they progress through each level.

**Build a strong future.** A trade certification opens doors to job security, higher income, and career advancement in high-demand industries.

## **For Families and Teachers Supporting Informed Career Choices**

Many adults may not realize just how exciting, high-tech, and rewarding careers in the skilled trades and technologies can be. These professions offer hands-on work with some of the most advanced tools and equipment in today's workforce.

Success in the skilled trades requires intelligence, creativity, dedication, and a strong work ethic. The training is rigorous and leads to stable, well-paying careers in high-demand fields.

Our goal is to ensure you have the information you need to guide the young people in your life. We encourage you to explore all the options together. Talk with your child or student, review the pathways available, and help them choose a direction that fits their interests and strengths.

When young people are supported in choosing the right path, they are empowered to become the next generation to succeed.

## **Educational Opportunities**

Apprenticeship training offers a dynamic path to rewarding and well-paying careers, where individuals gain real-world experience while they earn while they learn.

Apprenticeship in skilled trades is a powerful career training pathway for those who thrive in applied, practical learning environments. Young people have a full range of educational options available to them, especially the training opportunities that exist in the skilled trades and technologies. These careers are essential, respected, and in high demand; tradespeople training in the skilled trades are discovering just how far their skills can take them.

## **What is the High School Apprenticeship Program (HSAP)?**

HSAP lets you start your apprenticeship while you are still in high school. It combines regular high school instruction with paid, part-time, on-the-job apprenticeship training.

To begin, you will need a qualified employer who will agree to train you as an apprentice. You will work with your school guidance counsellor or the HSAP co-ordinator at your school, along with the trade specific Apprenticeship Training Coordinator (ATC) at Apprenticeship Manitoba to ensure you meet all of the program's academic requirements. Then, together with the employer, you will set up a suitable on-the-job/ academic timetable that allows you to attend all of your required high school classes and work part-time.

## **How do I qualify?**

To qualify for the HSAP you must be enrolled in an approved Manitoba grade 10, 11 or 12 program. If you are under 16 years old, you will also need to apply for a child work permit. To become an apprentice, you must be working in a trade that is recognized by Apprenticeship Manitoba and have a qualified employer who can give you quality, on-the-job training. You, your employer and your school contact/guidance counsellor are required to submit the Apprenticeship Application to Apprenticeship Manitoba. After your application is approved and you are registered, you will learn the skills of your chosen trade by working closely with certified tradespeople in the industry.

## **It's a great opportunity**

With HSAP you can:

- Earn high school credits while you work (up to eight, 40 Senior credits, or up to six credits for mature diploma students – based on 110 working hours per credit)
- Earn money while you learn (approximately 10 per cent more than provincial minimum wage)
- Earn post-secondary apprenticeship training hours
- Use your new skills and training to get a full-time job, a career in management or to start your own business.

## **Grants and Incentives**

### **High School Apprenticeship Program (HSAP) Incentive**

For every two HSAP credits earned (220 hours of on-the-job training), a personal contribution exemption for one level of Technical Training may apply, to a maximum of four Technical Training levels. This means, some or all of your technical training could be paid for through these incentives.

For more information on the HSAP program visit: [www.manitoba.ca/studentapprentice](http://www.manitoba.ca/studentapprentice)

or contact us at: Senior Years Technology Education Program Unit

Phone: 204-945-1857

Toll-Free: 1-800-282-8069, ext.1857

Email: [tve@gov.mb.ca](mailto:tve@gov.mb.ca)

## Career Sources

|                                             |                                                                                                                      |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Red Seal Program                            | <a href="http://www.red-seal.ca">www.red-seal.ca</a>                                                                 |
| NOC – National Occupation Classification    | <a href="http://www.cic.gc.ca/english/immigrate/skilled/noc.asp">www.cic.gc.ca/english/immigrate/skilled/noc.asp</a> |
| Working in Canada/Labour Market Information | <a href="http://www.jobbank.gc.ca">www.jobbank.gc.ca</a>                                                             |

## Post Secondary Education Sources

|                                           |                                                                                    |
|-------------------------------------------|------------------------------------------------------------------------------------|
| Apprenticeship Manitoba                   | <a href="http://www.manitoba.ca/apprenticeship">www.manitoba.ca/apprenticeship</a> |
| Assiniboine College                       | <a href="http://www.assiniboine.net">www.assiniboine.net</a>                       |
| Manitoba Institute of Trades & Technology | <a href="http://www.mitt.ca">www.mitt.ca</a>                                       |
| Red River College Polytechnic             | <a href="http://www.rrc.ca">www.rrc.ca</a>                                         |
| University College of the North           | <a href="http://www.ucn.ca">www.ucn.ca</a>                                         |

**Apprenticeship**  
Manitoba



### Contact us at:

Winnipeg: 204-945-3337

### To learn more about apprenticeship training:

[www.manitoba.ca/apprenticeship](http://www.manitoba.ca/apprenticeship)

### Call toll-free:

Anywhere in rural Manitoba: 1-877-978-7233

Email: [apprenticeship@gov.mb.ca](mailto:apprenticeship@gov.mb.ca)



# TECHNOLOGIES



Although Canadians use the terms 'Technician' and 'Technologist' generally to describe many different occupations, **Engineering/Applied Science Technicians and Technologists are very distinct individuals.**

From the moment Manitobans wake up in the morning and turn on a light switch or shower, until the end of the day, they rely on the work of these professionals. Technicians install cable and phone, monitor traffic, and work in labs. Technologists design plans with engineers, create commercial buildings and return well sites properly to nature. They ensure fast-acting telephone networks, smart traffic signals, proper water pressure at home, perfectly clean water to drink, reliable natural gas service and electrical power, and smooth roads on which to drive.

Professional Technicians and Technologists impact your life everyday, from morning through the night. They do so by having participated in the design, selection, use, installation, testing and repair of devices and equipment related to all aspects of everyday life. As technology professionals, they provide essential services and protection as part of a large team which includes trades people, engineers and scientists.

For individuals wishing to become an Engineering Technologist they should have a strong science and mathematics education background. They should enjoy problem solving and can pay attention to detail.

Architectural Technology/Architectural Engineering Technology

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Electrical Engineering Technologist

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Electronic Engineering Technologist

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Environmental Protection Technologist

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Geomatics Engineering Technologist

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Instrumentation and Control Engineering Technologist

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Mechanical Engineering Technologist

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Municipal Engineering Technologist

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Structural Engineering Technologist

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**NOTE: Wages are based on a variety of government and industry sources and are meant as a GUIDELINE ONLY.**

Graduates of any relevant journeyman program will be eligible to apply for certified technician C.Tech.

Certified technicians (C.Tech) are eligible to apply for certified engineering technologist upon completion of a competency exam and demonstrated work experience at the technologist level.

Graduates from a 3-year engineering technology program combined with a minimum of 4 years experience are eligible for a specified scope of practice of engineering or geoscience. This is in accordance with the Engineering and Geoscientific Professions Act.

## Architectural Technology/ Architectural Engineering Technology

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### Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

### Average Hourly Wage

- Student Work Co-op  
\$20.30

### What do they do?

Architectural Technology (AT) focuses on the technologies and generation for building construction documents. Architectural Engineering Technology A/E focuses on the engineering systems, architectural aspects, and construction practices that build a building.

### Potential Employers

- Architecture firms
- consulting engineering firms
- building contractors
- building materials and equipment suppliers
- home design and construction companies
- Government (Municipal, Provincial, Federal)

### What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 20-month program in Architectural Technology, or an equivalent is usually required for Architectural Technician. Those interested in Architectural Technology may enter directly into the program.
- A 32-month college program in Architectural Engineering Technology, or an equivalent is usually required for Architectural Engineering Technologists. After successfully completing the first year of Civil Engineering Technology, you can choose the Architectural Engineering Technology option.

### For more information

#### Certified Technicians and Technologists Association of Manitoba (CTTAM)

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088    <http://www.cttam.com>

#### Red River College Polytechnic

Email: [register@rrc.ca](mailto:register@rrc.ca)

Phone: 204-632-2327    Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>



# Electrical Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Work independently or in teams to support of the design, commissioning, engineering sales and support; operation and maintenance of electrical power system generation; distribution and protection; manufacturing; construction; machine and process control and electricity utilization systems.

## Potential Employers

- Electrical utilities
- Communications companies
- Manufacturers of electrical and electronic equipment
- Consulting firms
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 28 month college program in Electrical Engineering Technology, or an equivalent is usually required for Electrical Engineering Technologists.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### Certified Technicians and Technologists Association of Manitoba (CTTAM)

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cttam.com>

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<https://www.rrc.ca/services/student-service-centres/>

# Electronic Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Work independently or in teams to design components; equipment, processes; infrastructure, or systems; interpretation or preparation of specifications and drawings; quality management; operations and maintenance; installations and or servicing of equipment and systems; project management; supervision of projects and training activities.

## Potential Employers

- Aerospace Industry
- Cable companies
- Cell phone system providers
- Satellite manufacturers
- Manufacturers of electrical and electronic equipment
- Consulting firms
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 28 month college program in Electronic Engineering Technology, or an equivalent is usually required for Electronic Engineering Technologists. After successfully completing the first year of Electrical Engineering Technology you can choose the Electronic option.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### **Certified Technicians and Technologists Association of Manitoba (CTTAM)**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cticam.com>

### **Red River College Polytechnic**

Email: [register@rrc.ca](mailto:register@rrc.ca)

Phone: 204-632-2327 Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>

# Environmental Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Works on environmental issues and projects regarding the effects of human activity on the environment such as site investigation, reclamation, remediation, and containment, reuse and recycling, workplace health and safety, testing and quality control and integrated project management.

## Potential Employers

- Utilities
- Private Firms
- Consulting engineering firms
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 32 month college program in Environmental Protection Engineering Technology, or an equivalent is usually required for Environmental Protection Engineering Technologists. After successfully completing the first year of Civil Engineering Technology you can choose the Environmental Protection Municipal Engineering Technology option.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### **Certified Technicians and Technologists Association of Manitoba (CTTAM)**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cttam.com>

### **Red River College Polytechnic**

Email: [register@rrc.ca](mailto:register@rrc.ca)

Phone: 204-632-2327 Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>

# Geomatics Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Use advanced technologies such as satellite-based positioning and navigation, geographic information systems (GIS) and digital mapping to gather, analyze and interpret geospatial information for applications in natural resources, geology, environment, infrastructure creation and land use planning.

## Potential Employers

- Communication and location based companies
- Private Industry
- Consulting Engineering firms
- Survey firms
- Manufacturing, processing and transportation industries
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 32 month college program in Geomatics Engineering Technology, or an equivalent is usually required for Geomatics Engineering Technologists. After successfully completing the first year of Civil Engineering Technology, you can choose the Geomatics Engineering Technology option.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### **Certified Technicians and Technologists Association of Manitoba (CTTAM)**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cttam.com>

### **Red River College Polytechnic**

Email: [register@rrc.ca](mailto:register@rrc.ca)

Phone: 204-632-2327 Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>

# Instrumentation and Control Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Work independently or in teams to use their skills to design and calibrate systems used to measure, record, and control industrial process variables. Graduates have found employment as instrument engineering technologists, junior control loop designers, and technical sales people in engineering offices and manufacturing plants.

## Potential Employers

- Private Industry
- Consulting Engineering Firms
- Manufacturers
- Technical Sales
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 28-month year college program in Instrumentation and Control Engineering Technology, or an equivalent is usually required for Instrumentation Engineering Technologists.
- Experienced technicians (with a one or two-year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### **Certified Technicians and Technologists Association of Manitoba (CTTAM)**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cttam.com>

### **Red River College Polytechnic**

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Phone: 204-632-2327 Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>

# Mechanical Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Work in mechanical engineering fields such as the design, development, analysis, computer aided design, maintenance and testing of machines, components, tools, heating and ventilating systems, power generation and power conversion plants, manufacturing plants, automation and equipment.

## Potential Employers

- Aerospace Industry
- Transportation equipment manufacturing
- Farm equipment manufacturers
- Government (Municipal, Provincial, Federal)
- A wide range of manufacturing and transportation industries

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 28 month college program in Mechanical Engineering Technology, or an equivalent is usually required for Mechanical Engineering Technologists.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### Certified Technicians and Technologists Association of Manitoba (CTTAM)

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

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<https://www.rrc.ca/services/student-service-centres/>

# Municipal Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Design and construction of civil works and municipal infrastructure; project inspection; materials testing, interpretation or preparation of specifications/drawings; construction management; contract inspection and administration; quantity surveying; engineering and construction survey layout.

## Potential Employers

- Utilities
- Consulting engineering firms
- Construction firms
- Private industry
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 32 month college program in Municipal Engineering Technology, or an equivalent is usually required for Municipal Engineering Technologists. After successfully completing the first year of Civil Engineering Technology, you can choose the Municipal Engineering Technology option.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### **Certified Technicians and Technologists Association of Manitoba (CTTAM)**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cttam.com>

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Phone: 204-632-2327 Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>

# Structural Engineering Technologist

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## Salaries

- \$50,000 per annum – starting
- \$74,000 per annum – average
- \$100,000+ per annum – high

## Average Hourly Wage

- Student Work Co-op  
\$20.30

## What do they do?

Design and construction of building systems, computer-assisted design and drafting, site inspection, testing, and supervision, construction administration and project management.

## Potential Employers

- Municipal infrastructure departments.
- Utilities
- Consulting Engineering firms
- Transportation Companies
- Government (Municipal, Provincial, Federal)

## What kind of education, training, requirements and experience are needed?

- In Manitoba, completion of a 32 month college program in Structural Engineering Technology, or an equivalent is usually required for Structural Engineering Technologists. After successfully completing the first year of Civil Engineering Technology, you can choose the Structural Engineering Technology option.
- Experienced technicians (with a one or two year college diploma) may advance to technologists positions.
- Most employers require technologists to be certified by a provincial association which in Manitoba is the Certified Technicians and Technologists Association of Manitoba. A period of supervised employment is required before certification.

## For more information

### **Certified Technicians and Technologists Association of Manitoba (CTTAM)**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Tel: (204) 784-1088 <http://www.cttam.com>

### **Red River College Polytechnic**

Email: [register@rrc.ca](mailto:register@rrc.ca)

Phone: 204-632-2327 Toll Free: 1-800-903-7707

<https://www.rrc.ca/services/student-service-centres/>



## The Certified Technicians and Technologists Association of Manitoba (CTTAM)

CTTAM is the professional association that certifies and regulates Engineering Technicians and Technologists in Manitoba. It is an association of technically qualified individuals working in business and industry who have completed a significant level of post secondary technical education complemented by related practical experience.

CTTAM grants three Designations which are recognized nationally and internationally:

- Certified Engineering Technologist (C.E.T.)
- Applied Science Technologist (A.Sc.T.)
- Certified Technician (C.Tech.)

Consumers and technology professionals alike are always poised to learn about the latest advancements in technology and what can supply that crucial leading edge. Providing its members with guidance, career advantages and accreditation to which they might not otherwise have access, CTTAM offers the latest and the best, leading edge opportunities.

CTTAM credentials are recognized across Canada and internationally, making it easy to transfer to another jurisdiction. CTTAM has an agreement with each of the other provincial associations to allow certified Technicians and Technologists to transfer to another province and retain their certified status.

Many employers recognize the benefits of hiring CTTAM technology professionals. CTTAM members have been peer reviewed and deemed to have met national standards for education and experience related to engineering and science technologies. Members must have passed the professional practice exam on the code of ethics. All of these membership attributes provide the employer with assurance that when they hire a CTTAM member, they are hiring the most qualified technical person available.

### CTTAM's Mission Statement is:

Provide certification through credibility, recognition, employability and relationship.

#### **If you wish further information please contact us at:**

PO Box 70064 Kenaston PO, Winnipeg, MB, R3P 0X6

Phone: (204) 784-1088

E-mail: [admin@cttam.com](mailto:admin@cttam.com)

Website: [www.cttam.com](http://www.cttam.com)



## **Diversity Statement:**

**Skills Canada Manitoba recognizes the need for a diverse workforce and inclusive work environment in order to attract and retain skilled employees to the trades and technology sectors. We will continue to address these needs by collaborating with students and partners to deliver culturally relevant programs and to facilitate safe and accessible learning spaces for those pursuing a career in trades and technologies.**





## Land Acknowledgment:

Skills Canada Manitoba offices are located in Treaty 1 and Treaty 5 territories. Our work spans across the traditional territories of the Anishinaabe, Ininiwak, Anishinew, Dakota, Dene peoples and the homeland of the Red River Metis Nation. We uphold the treaties and collaborate with all Indigenous peoples to share truth, reconciliation and learning. We will continue to develop and deliver culturally relevant programs and to promote Indigenous innovation and invention across Manitoba.



## NOTES

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# Skilled Trades & Technologies



## Our Mission:

**To attract young Manitobans to careers in  
skilled trades and technologies**

## Our Vision:

**Skills Canada Manitoba will be a leader and vital  
partner in meeting Manitoba's skilled workforce needs**



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[instagram/skillsmanitoba](https://instagram/skillsmanitoba)

## Skills Canada Manitoba

**Phone: (204) 927-0250**

**Fax: (204) 927-0258**

**[www.skillsmanitoba.ca](http://www.skillsmanitoba.ca)**

