

# Career Development Manitoba

.....

Qualification Recognition, Alternative  
Careers, and Training Options

**February 2023**

# Career Development Manitoba

.....



## What Roles do Engineers in Canada Perform?



## Engineers

[NOC website](#)

### Job Duties

#### **Industrial engineers**

help companies to be more efficient. They test how companies achieve their goals, and then think of better ways to do this work.

#### **Electrical engineers**

design and develop electrical parts, equipment, and systems. They work with the electrical energy in phones, power generators, and much more.

#### **Electronics engineers**

design and develop electronic parts and systems. They make devices for the consumer, military, medical, and industrial industries.

#### **Civil engineers**

plan, design, and oversee the construction of buildings and other structures such as bridges, dams, roads, railways, sewers.

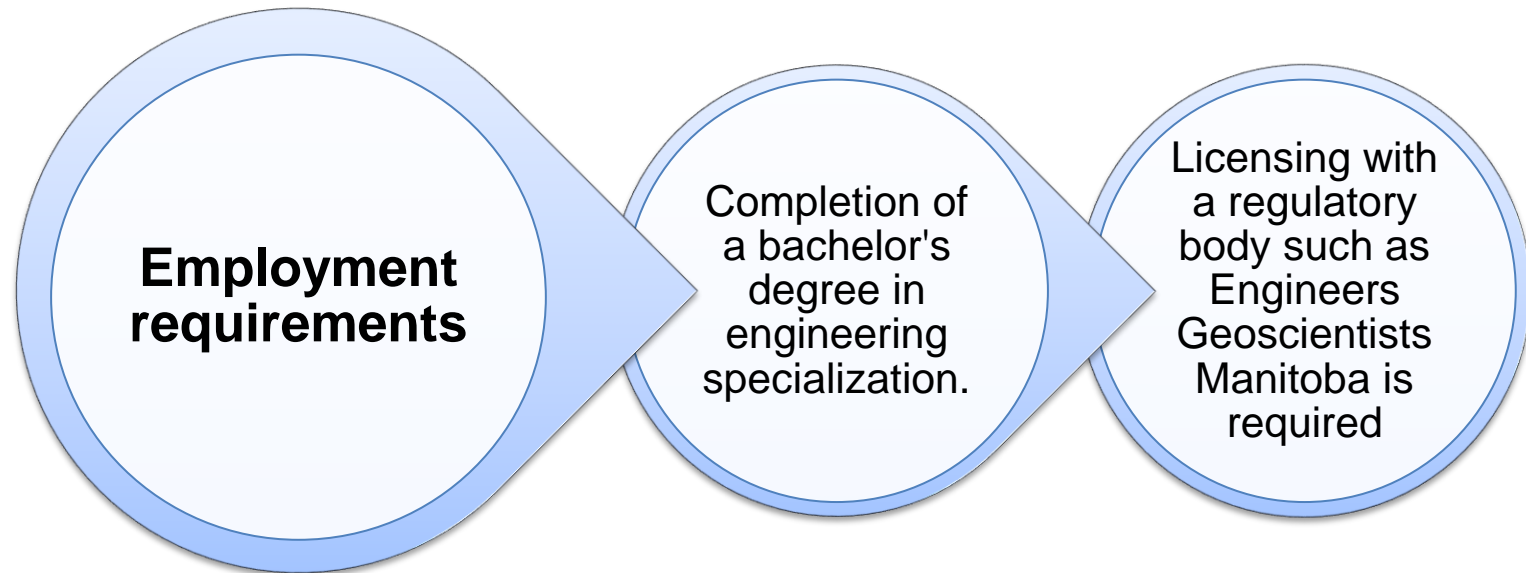
#### **Power engineers**

maintain heating and cooling systems (HVAC). They know how to start, stop, and maintain these complex power systems.

#### **Mechanical engineers**

design and create machines and mechanical systems. They use science to solve real-world problems.

## Engineers



## Internationally-Educated Engineers



If you wish to practice engineering or geoscience in Manitoba, you will be legally required to become registered with Engineers Geoscientists Manitoba.

This means that you may not take responsibility or call yourself professional engineer or geoscientist until you have become licensed by EGM.

## New Registration Process at EngGeoMB





## New Registration Process at EngGeoMB

**1<sup>st</sup> Step:** English proficiency documents, WES ICAP (academic assessment)

**2<sup>nd</sup> Step:** Application for Admission <https://www.enggeomb.ca/IEP.html>

**3<sup>rd</sup> Step:** Association will make sure the application is filled out completely, all documents are received, fees have been paid and then the application will be processed

- a) Competency based assessment ( applicants who have graduated with a 4-year degree in engineering or geoscience will be invited to the Competency -based program
- b) Confirmatory program ( applicant who do not meet the requirements for the CBA program). Applicants will be given the option to participate in one of the following programs:
  - Internationals Educated Engineers Qualifications Program IEEQ program
  - Fundamentals for Engineers (FE)
  - Post-Graduate Degree



**4<sup>th</sup> Step:** Competency-Based Assessment

<https://www.enggeomb.ca/CBA.html> <https://www.enggeomb.ca/pdf/Registration/GuideToCBA.pdf>

**5<sup>th</sup> Step:** Validation process- 4 validators (2 validators must be professional engineers or geoscientists), they will answer a set of questions regarding the applicant; provides overall feedback on the applicant's readiness for registration; review rates, and comments on the self- assessment.

**6<sup>th</sup> Step:** Report goes to the assessor ( reviewed by a licensed engineer or geoscience; provides final recommendation on the applicant's readiness)

**7<sup>th</sup> Step:** The National Professional Practice Exam (2-and-a-half-hour exam; closed book; offered twice a year)

## 6 Pathways/Options to Choose

Write the Canadian  
Engineering  
Qualification Board  
(CEQB) National  
Technical Exams

Write the  
Fundamentals of  
Engineering (FE)  
Exam

Take Courses-in-Lieu  
of the CEQB National  
Technical Exams

Apply for the  
Internationally  
Educated Engineers  
Qualification Program  
(IEEQ) at the UofM

Apply for an interview

Apply for and complete  
a Post-graduate  
Engineering Degree at  
an accredited  
institution

## Next STEPS (EIT)

After completing assigned exam program, you will receive a **letter of invitation** to apply to become an engineering intern or geoscience intern (EIT/GIT).



You will be asked to complete the online ABC TEST (Act, By-laws, and Code of Ethics) and to submit the EIT/GIT application.



Your file is passed to the Registration Committee. If you're academically qualified, you will receive a letter and instructions to continue with the registration process.

## Supervised Work Experience for (EITs)

As an INTERN, you must complete:

- 4yrs of eligible work experience (min)
- 48hrs of professional development
- 48hrs of volunteer service
- Pass the national professional practice exam
- 3 professional references (after 36 months)
- Obtain employment under the supervision of a professional engineer or geoscientist registered with EGM.



**Those who do not have a direct P.Eng. or P.Geo. supervisor will be required to find a mentor who is registered to sign off their progress reports.**

## Professional Licensure Contacts



### General Enquiries

204-474-2736

Toll-free: 1-866-227-9600

### Engineers Geoscientists Manitoba

870 Pembina Highway

Winnipeg, MB. R3M 2M7

Email: [info@EngGeoMB.ca](mailto:info@EngGeoMB.ca)



### Engineers Geoscientists of Manitoba

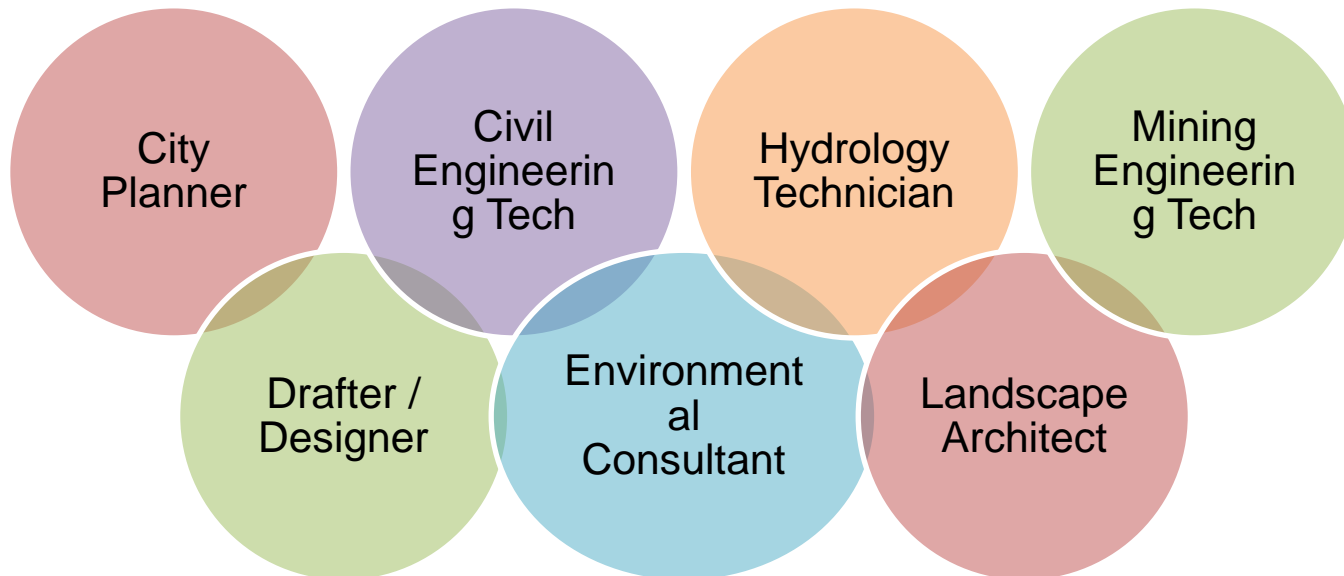
[www.enggeomb.ca](http://www.enggeomb.ca)

**Claudia Shymko**  
International Registration Program Coordinator  
[CShymko@EngGeoMB.ca](mailto:CShymko@EngGeoMB.ca)

## Alternative Careers for Engineers



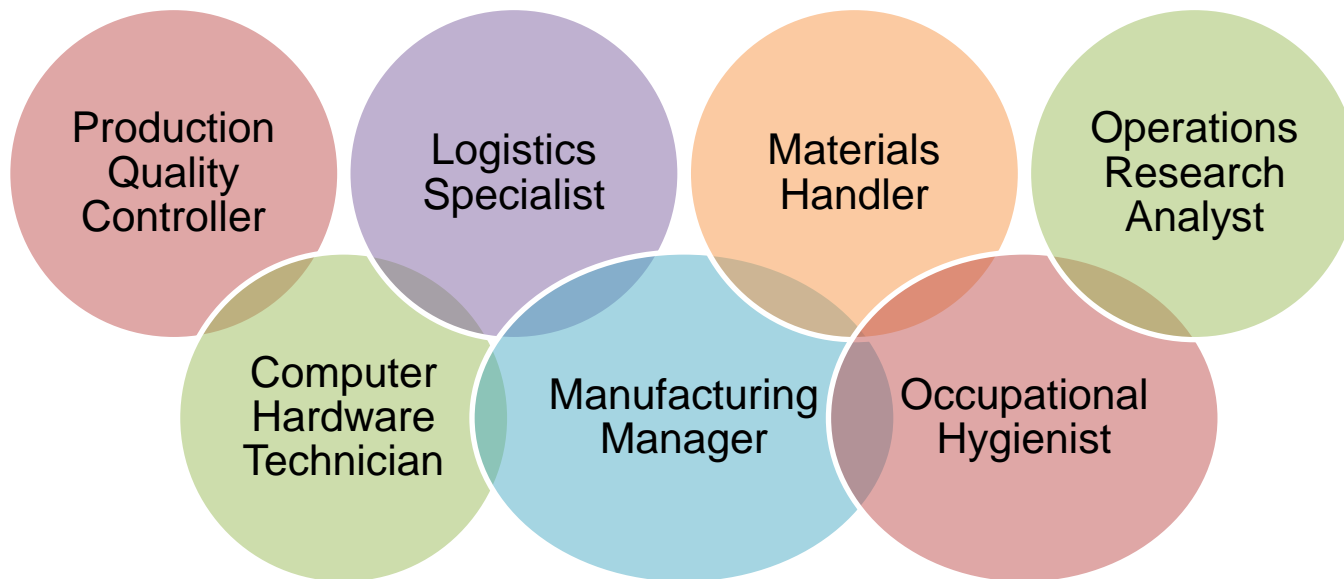
## Alternate Careers for Civil Engineers



For more information visit [NOC website](#)

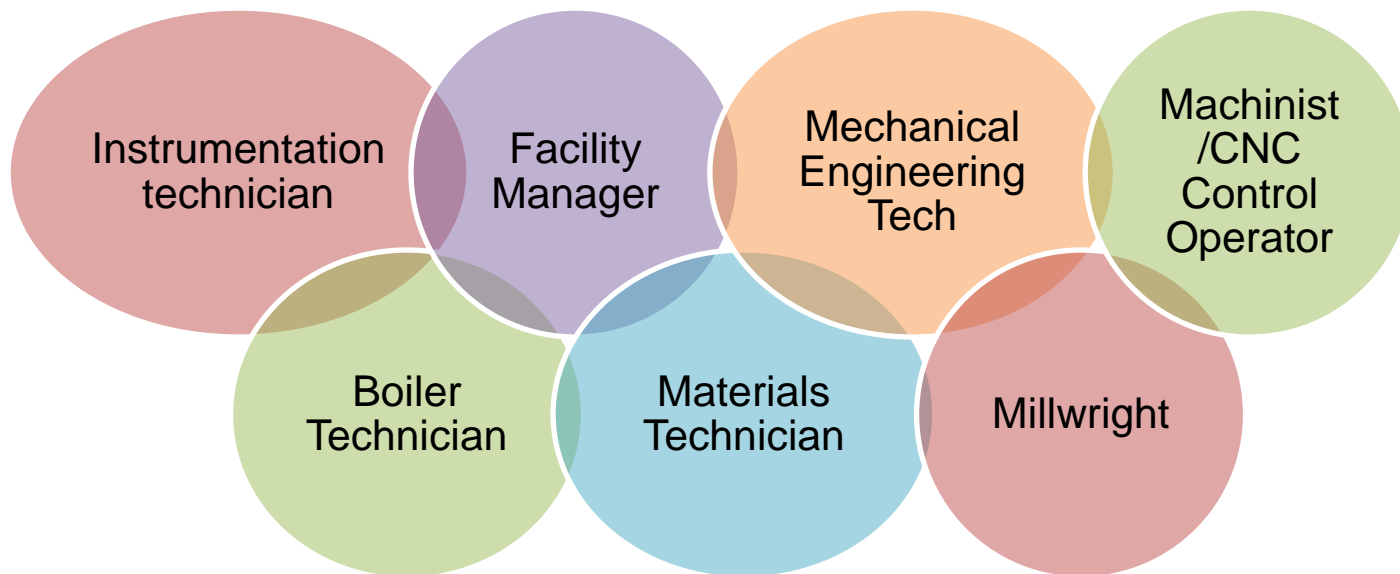


## Alternate Careers for Industrial Engineers



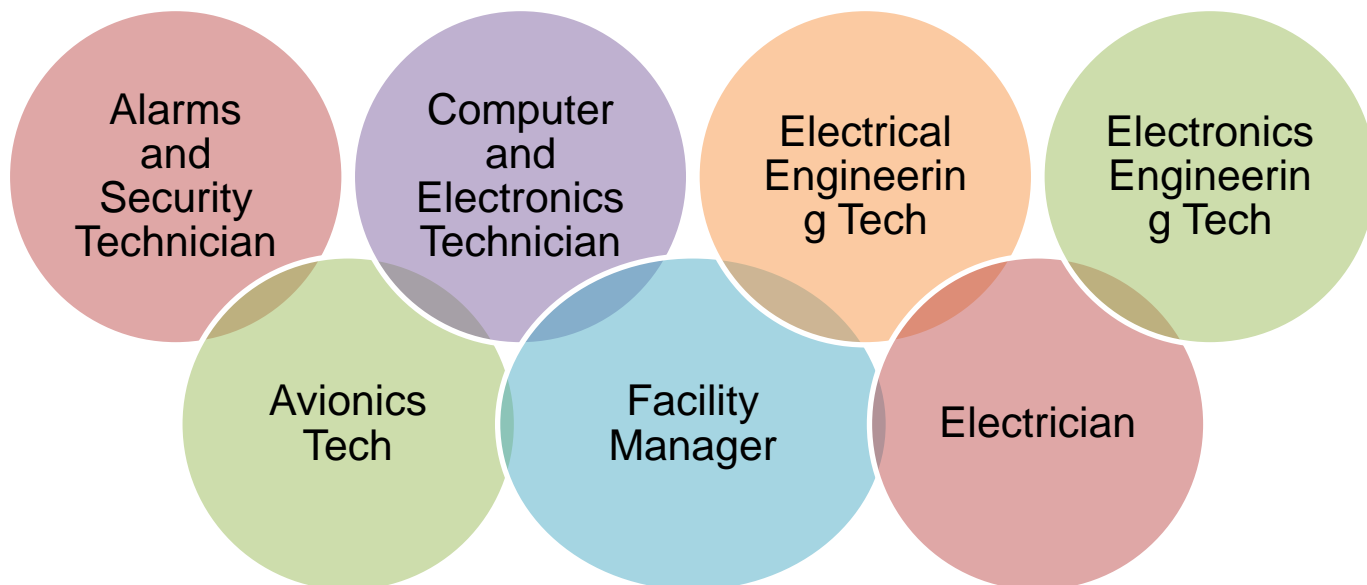
For more information visit [NOC website](#)

## Alternate Careers for Mechanical Engineers



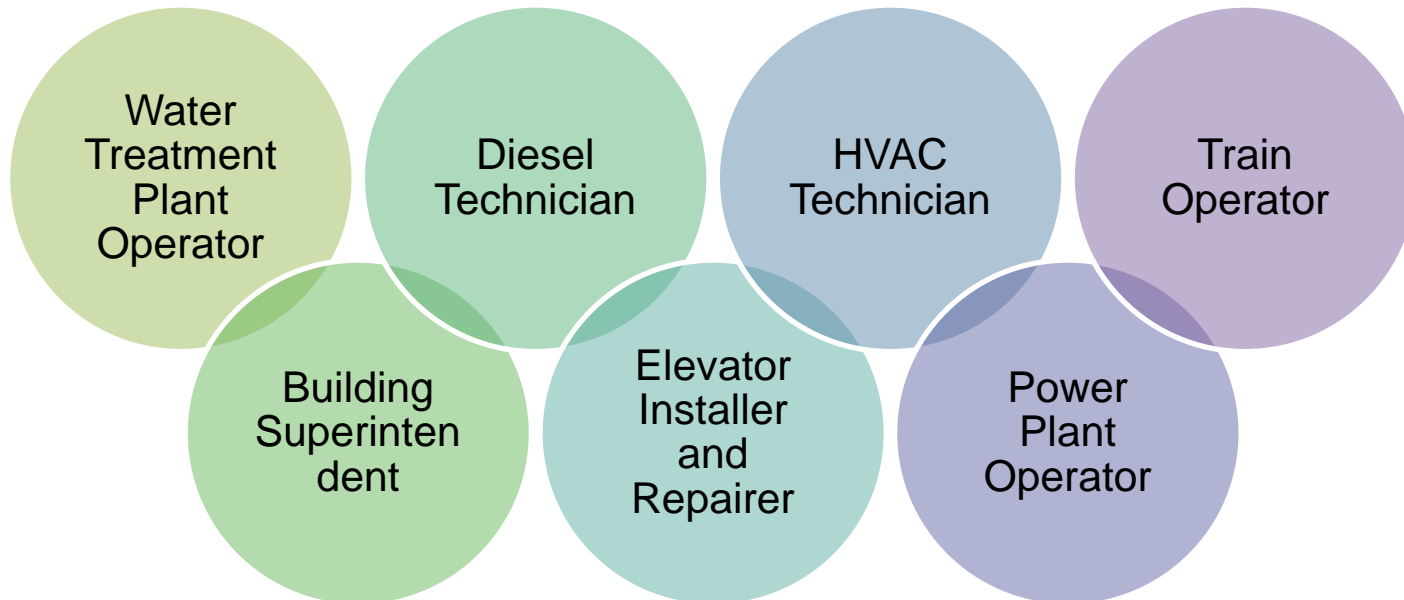
For more information visit [NOC website](#)

## Alternate Careers for Electrical Engineers



For more information visit [NOC website](#)

## Alternate Careers for Power Engineers



For more information visit [NOC website](#)

## Training Options for Engineers

### RED RIVER COLLEGE

- Civil Technician Certificate
- Civil Engineering Technology (First year entry to six Civil Engineering and related disciplines)
- Geomatics Technology Diploma (32-months diploma)
  - Year 1 - general first year in Civil Engineering Technology
  - Year 2 & 3 - Geomatics Technology Option

- Structural Engineering Diploma (32-months diploma)
  - Year 1 - general first year in Civil Engineering Technology
  - Years 2 & 3 - Structural Engineering Technology Option
- Architectural/Engineering Technology Diploma (32-month diploma)
  - Year 1 - general first year in Civil Engineering Technology
  - Year 2 & 3 - Architectural/Engineering Technology Option

## Training Options for Engineers

### RED RIVER COLLEGE

- Construction Management (4-year degree program)
- Design Drafting Technician Advanced diploma program
- Construction Management Certificate program
- Drafting/CAD Certificate program

### WINNIPEG CONSTRUCTION ASSOCIATION - Online Courses

- Communications, Negotiation and Conflict Resolution
- Construction Project Management
- Construction Law
- Introduction to Building Information Modeling (BIM)
- Introduction to Construction Estimating
- Construction Industry Ethics
- Working in a Respectful and Inclusive Workplace

## Training Options for Engineers

### RED RIVER COLLEGE

- Aerospace Manufacturing (5 months Full Time)
- Aircraft Maintenance Engineer Diploma (2yrs)
- Apprentice Aircraft Maintenance Journeyperson
- Red River College / Apprenticeship Manitoba (4-nine-week terms, 1 term per year) 1232hrs of in-school training+ 6000hrs of monitored experience)
- Aerospace Manufacturing and Maintenance Program, Technical Vocational School (10-month program)

### PROJECT MANAGEMENT Courses

- Project Management Diploma  
University of Winnipeg
- Applied Project Management  
Certificate, University of Winnipeg
- Project Management, Red River  
College
- Project Management Institute  
(PMI)



## Career Planning Can Help You

**Enter the workforce**

**Plan for education**

**Deal with changing workplace demands**

**Anticipate trends or changes**

**Upgrade or maintain your skills**

**Develop skills for managing your career**

## Reflecting on Barriers and Strengths



## Setting Short and Long-term Goals

**Set SMART Goals**  
What? When?  
How?

**How much time**  
do you have  
to complete  
each step?

**What resources**  
might you need?  
Who can help?

## Career and Education Plan

Name and Client ID: Kenny Jones (12345)

### Short Term Goal 1

Alarms and Security Technician

### Short Term Goal 2

Facility Manager

### Long Term Goal

Electrical Engineer

#### Achieving and Maintaining Long-Term Employment

- Maintaining long term employment and Career Management – An ongoing process:
  - a. Continuous learning – develop new skills or refine existing skills
  - b. Professional development – take courses, attend workshops, read, network, volunteer
  - c. Balancing work and life – reflect on values, priorities and life circumstance
- Other: Attend qualifications recognition & networking events at Manitoba Start

#### Researching Post Secondary Training

- Research education and training options Date: May 28, 2021
- Identify post-secondary institution Date: May 28, 2021
- Verify admissions requirements Date: May 28, 2021
- Research funding options (Employment MB, SEED Recognition Counts, Student Aid, etc.) Date: May 28, 2021
- Other: Research alternative training options, CTTAM, IEEQ, RRC, and EGM Date: May 28, 2021

#### Qualification Recognition

- Research your regulated profession or trade Date: Jun 11, 2021
- Contact regulatory body Date: Jun 11, 2021
- Identify necessary requirements (language level, transcript, syllabus, etc.) Date: Jun 11, 2021
- Research Funding Options (Immigrant Access fund, Employment MB, SEED Recognition Counts, MB Student Aid, bursaries, financial institutions, etc.). Date: Jun 11, 2021
- Other: Connect with EGM; register for SEED Winnipeg Webinar on Manitoba Start website. Date: Jun 18, 2021

#### Skill Development

- Research job specific training (First Aid/CPR, fork lift, security guard license, etc.) Date: May 3, 2021
- Complete ASSESS assessments sent by facilitator/coach; consider computer training Date: May 3, 2021
- Consider volunteering (visit [www.volunteermanitoba.ca](http://www.volunteermanitoba.ca)) Date: May 3, 2021
- Language assessment at WELARC Date: May 10, 2021
- Obtain Driver's license Date: May 28, 2021
- Other: Find volunteer opportunities in technical occupations; prepare for Manitoba drivers licensing Date: May 10, 2021

#### Job Search Preparation

- Complete Career Development Workshop at Manitoba Start Date: Apr 30, 2021
  - Finalize marketing materials (resume, cover letter, references) Date: May 7, 2021
  - Apply for Security Clearance Checks (criminal record check, child abuse registry, adult abuse registry, immunizations record) Date: May 3, 2021
  - Other: Date: May 3, 2021
- Prepare a list of engineering, technical /manufacturing employers to apply after finalizing resume and cover letter with my career coach

# Thank you!

If you require additional information about qualification recognition, please contact your Career Coach.

If you are not currently a Manitoba Start client, register with us:

- Call front desk at 204-944-8833
- Visit in person
- Complete our online [registration form](#) to receive career development support.

Good luck with your career planning and work search!