

Career Development Manitoba

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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.

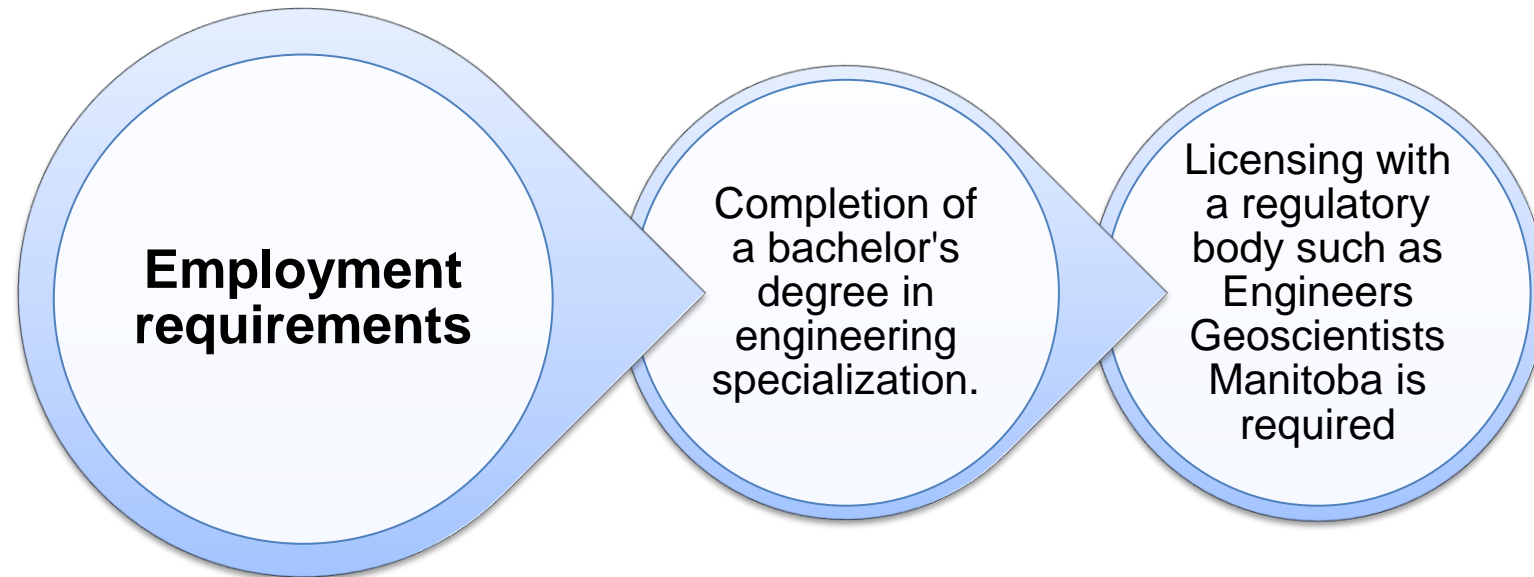
Power engineers

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

1st Step: English proficiency documents, WES ICAP (academic assessment)

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

3rd 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

4th Step: Competency-Based Assessment

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

5th 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.

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

7th 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



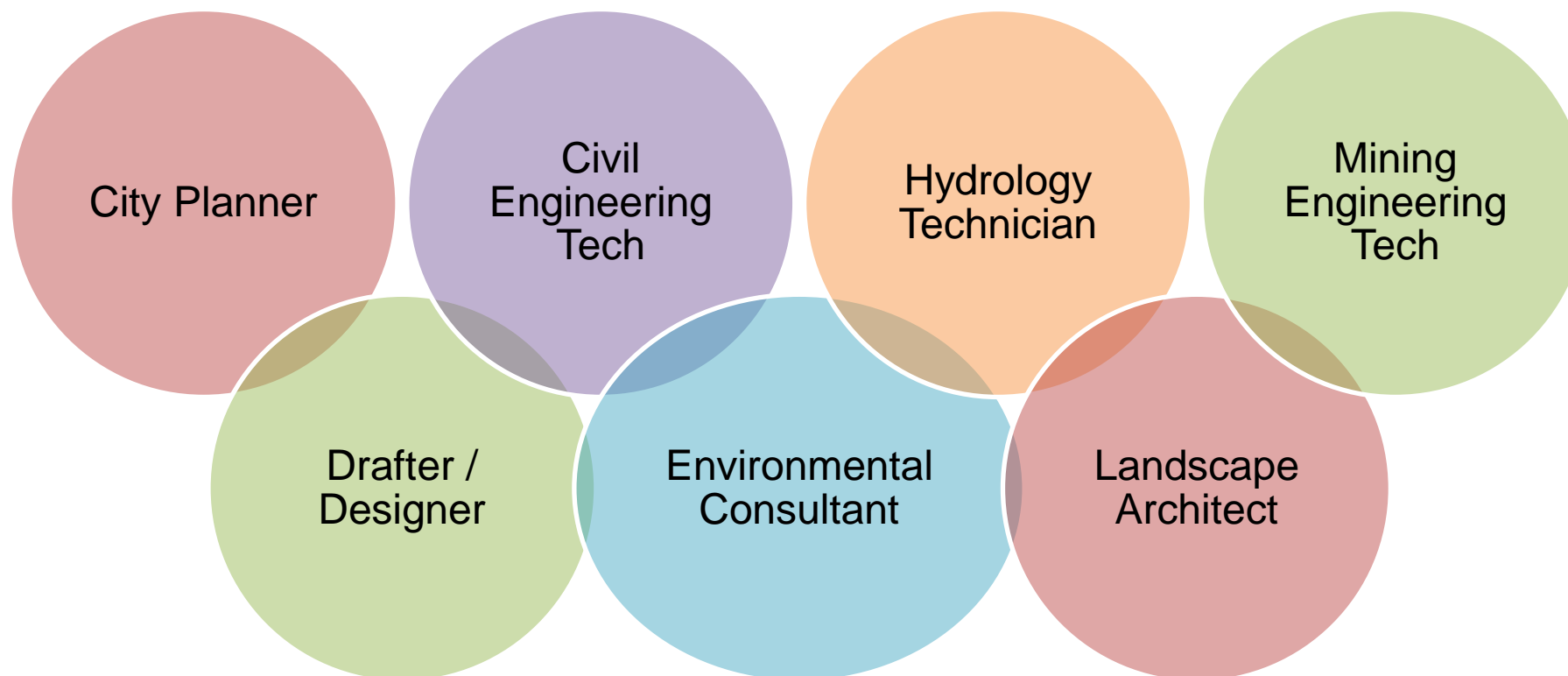
Engineers Geoscientists of Manitoba www.enggeomb.ca

Claudia Shymko
International Registration Program Coordinator
CShymko@EngGeoMB.ca

Alternate Careers for Engineers

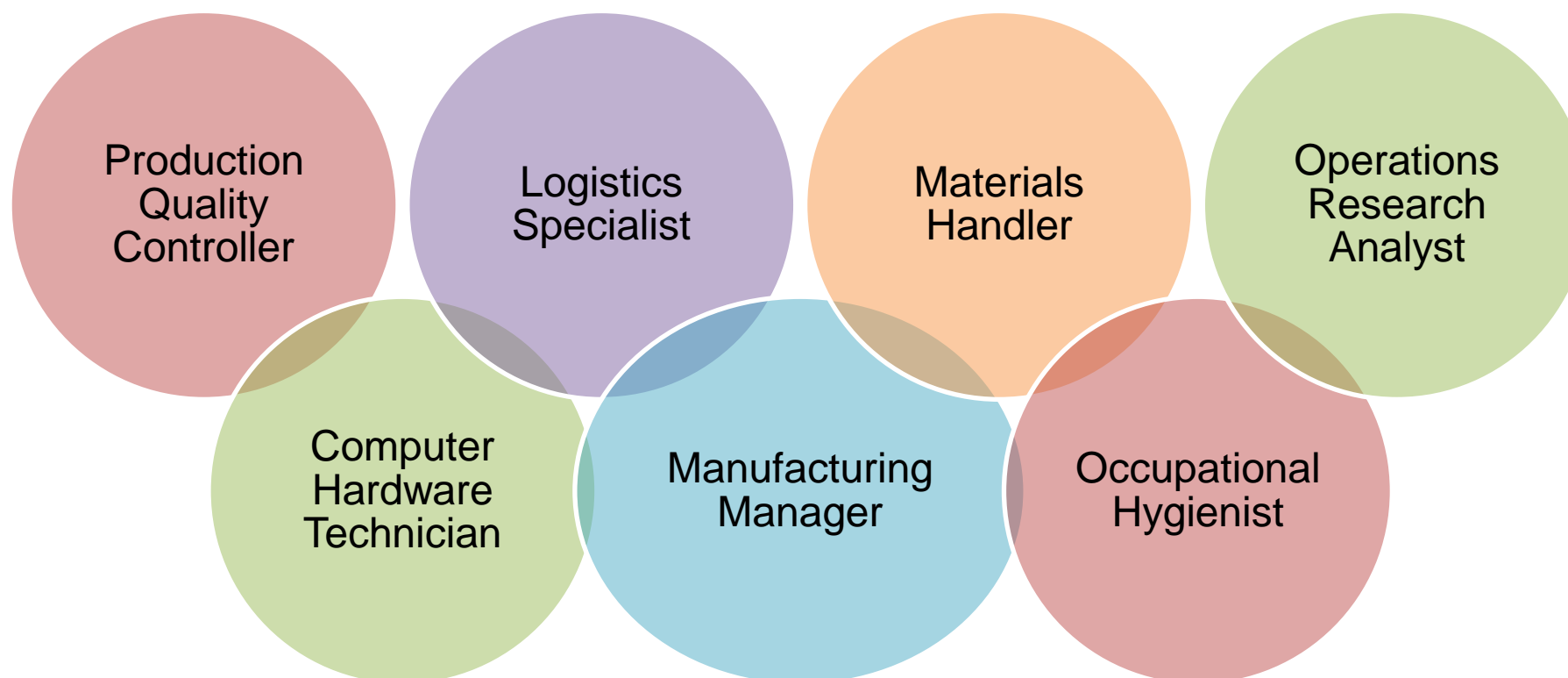


Alternate Careers for Civil Engineers



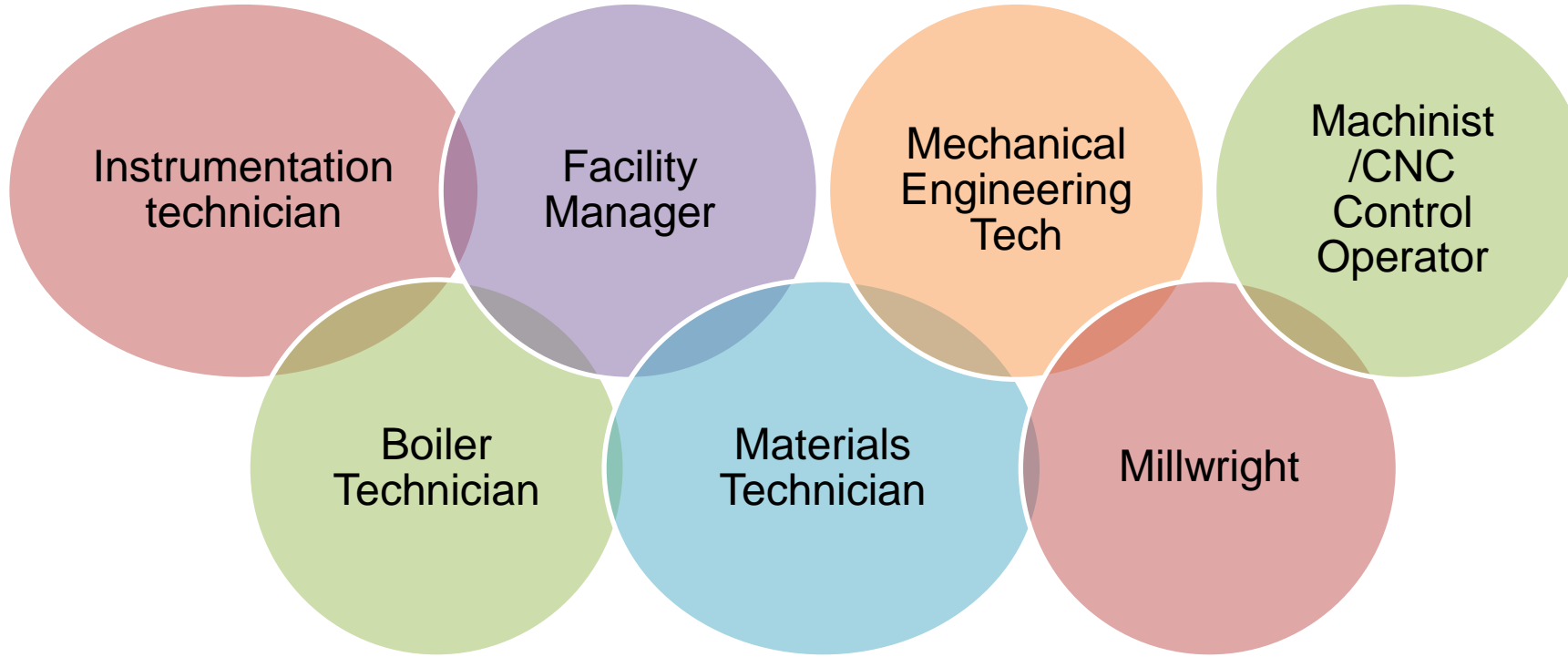
For more information visit [NOC website](#)

Alternate Careers for Industrial Engineers



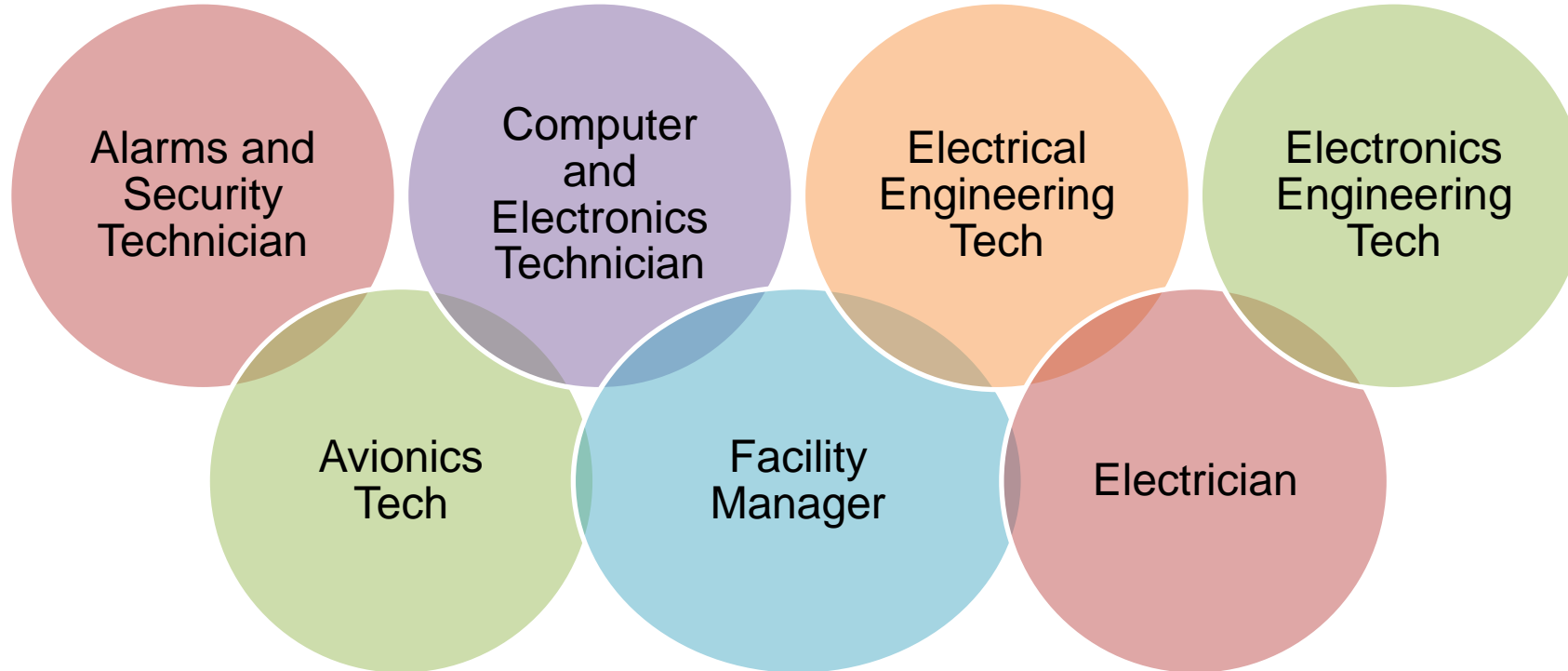
For more information visit [NOC website](#)

Alternate Careers for Mechanical Engineers



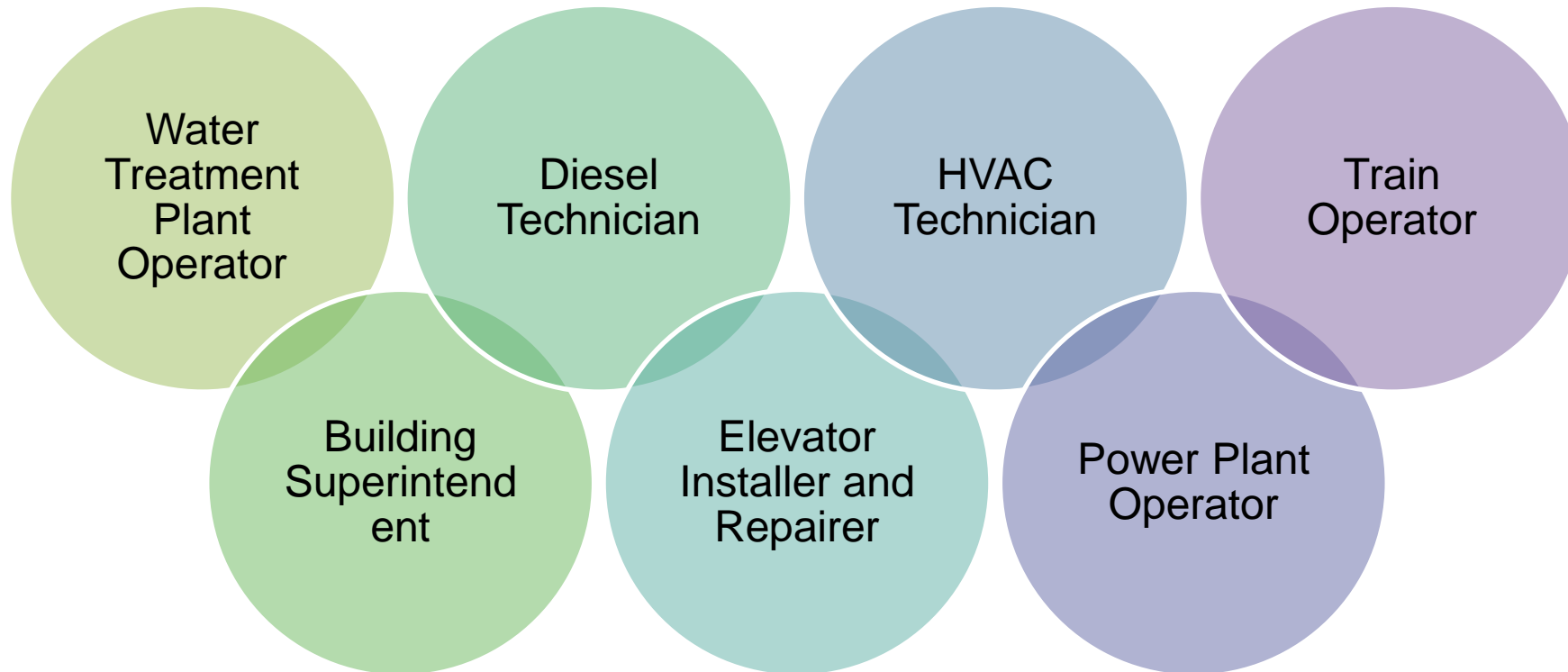
For more information visit [NOC website](#)

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) 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!