

# POWER ENGINEERING

**8-MONTH  
CERTIFICATE**

Keep industry running smoothly with the essential skills for a challenging career in power engineering. If you want a career and not just a job, then this is the program for you.

## Why choose a career in Power Engineering?

- 1 Ready to go**  
Power engineers are in high demand in Manitoba. If you are self-motivated, responsible and enjoy the technical challenge, this program will prepare you to take the standardized power engineering examination so you can start your career as a 4th Class Power Engineer.
- 2 Full steam ahead**  
As a power engineer, you will be responsible for efficiency, operation and safety for industrial equipment, such as steam engines, air compressors, boilers and turbines. You will learn how to operate and maintain these types of equipment, as well as the mathematics, mechanics, combustion, thermodynamics and instrumentation you will need in this career.
- 3 Dial up hands-on learning**  
With this eight-month certificate, you will learn how to operate power plants on modern equipment simulating a 400 MW, pulverized coal-fired steam-generating unit. Hands-on learning methods at our North Hill campus will give you practical experience.
- 4 A bright future**  
Your career could see you working with heating and air conditioning, refrigeration or fire systems. You may work in buildings or industrial complexes like hospitals, government agencies, school divisions, regional health authorities and manufacturing plants—anywhere that maintains complex industrial systems.

### FULL-TIME, ON-CAMPUS TIMELINE:

**SEPTEMBER**  
Fall term begins

**JANUARY**  
Winter term begins

**MAY**  
Work placement

**JUNE**  
Graduation

Program delivery options:



North Hill Campus

## CAREER OPPORTUNITIES

Graduates find employment opportunities in hospitals, government agencies, school divisions, regional health authorities, and numerous other plants and building complexes.

## ADMISSION REQUIREMENTS

- A complete Manitoba Grade 12 or equivalent
- English 40G/40S or equivalent
- Consumer/Essential Mathematics 40S or equivalent

English is the language of instruction at Assiniboine. All applicants educated outside of Canada or in a country not on the test exempt list are expected to meet the English language proficiency requirement. See [assiniboine.net/elp](http://assiniboine.net/elp) for more information.

## UNIQUE LEARNING EXPERIENCES

- Emphasis on practical, applied learning
- Industry-based practicum
- Hands-on learning in industry during the majority of the program

## GRADUATION REQUIREMENTS

To graduate with a Power Engineering certificate, students must successfully complete 60 academic credits and 6 practical credits.

The minimum passing grade for each course is indicated on the course outline.

## CONNECTIONS

Graduates may write the Standardized Power Engineering Examinations. Candidates who pass these examinations receive a Standardized Certificate, which makes them eligible to work as power engineers in all Canadian provinces and territories except Quebec.

Assiniboine has a number of agreements with other colleges, universities and professional organizations, making it possible for students to apply credit taken at Assiniboine to programs at other institutions. For up-to-date information on agreements, visit [assiniboine.net/registrar](http://assiniboine.net/registrar) or the program page.

## PROGRAM FEES (DOMESTIC ONLY)

Tuition, fees and Students' Association fees total approximately **\$4,790**.

Estimated cost for books and supplies is **\$2,640**.

*All fees are estimated and subject to change without notice.*

## COURSES 2020-21

| NUMBER    | COURSE TITLE                   | CREDITS |
|-----------|--------------------------------|---------|
| DRFT-0005 | Blueprint Reading (PE)         | 3       |
| ENGR-0030 | Boilers and Materials          | 6       |
| ENGR-0046 | Combustion and Maintenance 1   | 3       |
| ENGR-0047 | Combustion and Maintenance 2   | 3       |
| COMM-0045 | Communications                 | 3       |
| ELEC-0025 | Electrical (PE)                | 6       |
| SCIE-0036 | Engineering Chemistry          | 3       |
| ENGR-0018 | Engines (PE)                   | 3       |
| ENGR-0031 | Heating Boilers and Systems    | 3       |
| ENGR-0048 | Instrumentation and Controls 1 | 3       |
| ENGR-0049 | Instrumentation and Controls 2 | 3       |
| MATH-0050 | Mathematics (PE)               | 3       |
| MECH-0083 | Mechanics (PE)                 | 3       |
| PRAC-0193 | Practicum - POWER              | 6       |
| ENGR-0019 | Refrigeration (PE)             | 6       |
| WRKP-0016 | Safety and Environment         | 6       |
| ENGR-0050 | Thermal and HVAC Studies 1     | 1.5     |
| ENGR-0051 | Thermal and HVAC Studies 2     | 1.5     |

*Note: Timelines, applicable industry experience, and teaching methodology will depend on program delivery choice; program information sheets subject to change without notice. Visit [assiniboine.net](http://assiniboine.net) for the most up-to-date information.*

## NEXT STEPS

Apply now! Visit [assiniboine.net/applynow](http://assiniboine.net/applynow). For more information on this program, visit [assiniboine.net/powerengineering](http://assiniboine.net/powerengineering).