ASSINIBOINE COMMUNITY COLLEGE

POWER ENGINEERING

2-YEAR DIPLOMA

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

If you are self-motivated, responsible and enjoy a technical challenge, the Power Engineering program is for you. This program prepares you to write the certification examinations for 4th Class and 3rd Class Power Engineering.

2 Dial up hands-on learning

In this two-year diploma program, you will learn to operate and maintain equipment found in industrial plants, as well as learn the mathematics, mechanics, combustion, thermodynamics and instrumentation needed for this career. Hands-on experience is gained through placements with local industry.

3 Full steam ahead

As a power engineer, you will be responsible for the operation and maintenance of power and process plants. This includes the safe and efficient operation of industrial equipment such as steam engines, air compressors, boilers and turbines.

4 A bright future

Power engineers are in high demand in Manitoba. Your career could see you working in various industries, including chemical manufacturing, food processing and electrical generation. You may work in buildings or institutional complexes like hospitals, government agencies, school divisions, regional health authorities and manufacturing plants—anywhere that maintains complex mechanical systems.

CAMPUS/DELIVERY OPTIONS	AVAILABLE INTAKES	WORK PLACEMENT(S)
North Hill Campus	September	YR 1 | 2 days/week for 24 weeks
		YR 2 | 2 days/week for 24 weeks

CAREER OPPORTUNITIES

Graduates find employment opportunities in various industries, including chemical manufacturing, food processing, electrical generation, manufacturing plants and building complexes such as hospitals and schools.

ADMISSION REQUIREMENTS

- A complete Manitoba Grade 12 or equivalent
- English 40G/40S or equivalent
- Pre-Calculus or Applied Mathematics 40S or equivalent
- Physics 30S or Chemistry 30S 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** for more information.

TECHNOLOGY REQUIREMENTS

Students in this program are expected to have a computer at home with internet access that meets the technical needs outlined by the program. Refer to **assiniboine.net/tech** for detailed information.

UNIQUE LEARNING EXPERIENCES

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

GRADUATION REQUIREMENTS

To graduate with a Power Engineering diploma, students must successfully complete 120 academic credits and 12 practical credits. 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 60% as 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.

NEXT STEPS

Apply now! Visit **assiniboine.net/applynow**.
For more information on this program, visit **assiniboine.net/powerengineering**.

PROGRAM FEES (DOMESTIC ONLY)

Year One
Tuition: **$3,640** Course fees: **$1,520**
Students' Association fees: **$470**
Estimated textbooks, tools and supplies: **$3,570**

Year Two
Tuition: **$3,640** Course fees: **$1,620**
Students' Association fees: **$470**
Estimated textbooks, tools and supplies: **$1,450**

*All fees are estimated and subject to change without notice. For international program pricing, if/when applicable, please visit **assiniboine.net**.*

COURSES 2023-24

NUMBER	COURSE TITLE	CREDITS
YEAR ONE		
DRFT-0005	Blueprint Reading (PE)	3
ENGR-0030	Boilers and Materials	6
PEDV-0356	College Foundations	0
ENGR-0046	Combustion and Maintenance 1	3
ENGR-0047	Combustion and Maintenance 2	3
COMM-0045	Communications	3
ELEC-0025	Electrical 1 (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-0301	Practicum 1 – PWRNG	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
YEAR TWO		
MATH-0018	Advanced Mathematics (PE)	4.5
MECH-0149	Advanced Mechanics (PE)	6
ENGR-0052	Advanced Thermodynamics	6
ENGR-0053	Boiler Design	6
ENGR-0054	Boiler Systems and Operation	3
ENGR-0055	Boiler Water Treatment	1.5
ENGR-0056	Codes and Combustion	1.5
ENGR-0057	Compressor Principles	1.5
ELEC-0037	Electrical 2 (PE)	6
ENGR-0058	Fuel-Powered Equipment	3
WRKP-0077	Industrial Safety	1.5
SCIE-0089	Industrial Science	4.5
ENGR-0059	Instrumentation and Controls 3	3
ENGR-0060	Piping Design	1.5
PRAC-0307	Practicum 2 - PWRNG	6
ENGR-0061	Pump Systems	1.5
ENGR-0062	Refrigeration and Heating	3
ENGR-0063	Steam Turbines	3
ENGR-0064	Wastewater Treatment	1.5
WELD-0062	Welding and Pressure Vessels	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** for the most up-to-date information.*

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