

Power Engineer 4th Class

Power Engineers, Power Plant or Boiler Operators or Operating, Steam and Stationary Engineers, are some of the descriptions that summarize a technically skilled professional who is responsible for the safe operation and maintenance of equipment such as pumps, gas compressors, generators, motors, boilers, steam turbines, air conditioning systems, heat exchangers and refrigeration equipment. Your duties are: to ensure that safety codes and other applicable regulations are followed, use computerized systems to control, start, shut down and track the operation of boilers and related equipment, or use automatic or manual controls, monitor alarms, gauges and other instruments associated with plant operations, trouble shoot and take corrective action to prevent equipment or system failures, isolate and lock out equipment mechanically and electrically for inspection and repair, ensure that equipment and processes operate at maximum efficiency, take chemical test or boiler water and other process samples, interpret them and determine appropriate chemical treatments, assist in the development of operation, maintenance and safety procedures, maintain a daily log of operation, maintenance and safety activities, investigate and report on safety related accidents or incidents, write reports about plant operation. Your working conditions may vary considerably, you may be exposed to high noise levels, high temperatures, high humidity and all types of outdoor weather or you may work in a climate controlled environment. You should have good vision, hearing, manual dexterity and eye-hand co-ordination, good communication skills, good organizational and decision-making skills and the ability to work well with others.

Upon successful completion of the program you will write an Inter Provincial Certification Exam for Power Engineer, 4th Class that is conducted by the Industrial Training division of the Department of Education.

With appropriate work experience, plus additional education, you can successfully obtain the highest certification level of 1st Class Power Engineer. It is your choice to pursue your level of qualification. The Department of Education has adopted the Standardization of Power Engineers Examination Committee (SOPEEC) Regulations as the framework to govern writing of Power Engineering exams. Power

Engineering is not a Red Seal Program but is similar in that a combination of hours worked and education enables you to progress to a higher level.

OUTCOMES

1. Demonstrate the practical skills necessary for a 4th Class, Power Engineer.
2. Develop and practice proper safety procedures.
3. Demonstrate problem solving skills and good work practices.
4. Provide related skills to further enhance my learning and working abilities.

ENTRANCE REQUIREMENTS

Eligibility for admission requires the applicant to meet one of the following academic criteria:

1. High School

High School Graduation

2. Comprehensive Arts and Science (CAS) Transition

Comprehensive Arts and Science (Transition) Certificate

3. Adult Basic Education

Adult Basic Education (Level III) Graduation with General College Profile (or Business Related College Profile or Degree and Technical Profile). It is strongly recommended that courses include the following:

- i. Mathematics MA3107A, MA3107B, MA3107C
- ii. Science 3101, 3102, 3103

4. Mature Student Status

Applicants who do not meet the educational prerequisites, are 19 years of age or older and have been out of school for at least one year, may be considered on an individual basis under the Mature Student Clause.

EMPLOYMENT OPPORTUNITIES

You may obtain employment as a 4th Class Power Engineer in most large plants or buildings in both the public and private sector. These may include government buildings (Municipal, Provincial, Federal); health and educational institutions; manufacturing, production and service industries such as mining, fish plants, pulp and paper, electric utilities, refineries, bottling companies, food processing plants, etc.

CERTIFICATE

- One year
- September Start
- Corner Brook Campus

COURSES

CODE	TITLE	Hrs
Semester 1		
PW1100	Power Engineering Mathematics	32
PW1110	Power Engineering Science	52
PW1120	Introduction to Industrial Drawings	22
PW1130	Introduction to Communication Skills	20
PW1140	Work Safety & the Environment	84
PW1200	Power Engineering Maintenance I	20
PW1210	Power Engineering Operations	80
CM2150	Workplace Communications	45
MC1050	Introduction to Computers	30
MR1220	Customer Service	30
SD1700	Workplace Skills	30
Semester 2		
PW1220	Power Engineering Operation Equipment	52
PW1300	Electrical Principals	34
PW1310	Power Engineering Controls and Instrumentation	38
PW1320	Power Engineering Heating Boilers and Systems	92
PW1400	Auxiliary Systems	22
PW1410	Power Engineering & Refrigeration Systems	60
PW1420	Power Engineering & Air Conditioning Systems	48
PW1430	Power Engineering Maintenance II	40
SD1710	Job Search Skills	15
SD1720	Entrepreneurial Skills	15
SP2330	Quality Assurance/Quality Control	30
Intersession		
OJ1650	Work Job Placement 4 weeks	120
PW1440	Power Engineering and Industrial Applications	90

