**Power Engineering Techniques - 4th Class**
St. Thomas/Elgin Regional Campus
PEQ2S - Power Engineering Techniques - 4th Class

**This program has been permanently suspended.**

**Program Description**
The Power Engineering Techniques - 4th Class program provides students with a thorough introduction to all aspects of the work of power engineers at the 4th class level, offering both theory and practical learning opportunities. Students will be exposed to a variety of power generating equipment in use in both private and public sector settings.

The curriculum for this program is aligned with the Standardized Power Engineers Examination Committed (SOPECC) syllabus and has been approved by the certifying body for power engineers in Ontario, the Technical Safety and Standards Authority (TSSA). Graduates will be well-positioned to write the Class 4 TSSA exams. The Plan Global Learning System is used.

**Document of Recognition**
Power Engineering Techniques - 4th Class Ontario College Certificate

**Program Type/Credential**
45 Week Ontario College Certificate

**Learning Outcomes**
The graduate has reliably demonstrated the ability to:

- Identify and explain operation of components according to industry specifications.
- Select and use a variety of troubleshooting techniques, problem solving skills and test equipment to assess and control power plants components and operation.
- Apply knowledge of electrical calculations, applied mechanics, thermodynamics, and applied science to ensure safe and efficient operation of the facility.
- Communicate information effectively and accurately to document projects and perform daily operations in a power operating environment under the supervision of a qualified person.
- Conduct modifications to quality control procedures under the supervision of a qualified person.
- Develop and use strategies for ongoing personal and professional development to enhance performance.

- Complete all assigned work in compliance with Technical Standards & Safety Authority (TSSA) regulations, occupational, environmental, health, and fire safety procedures, practices, and laws applicable to the power industry.

**Career Opportunities**
Graduates of Fanshawe's Power Engineering Techniques – 4th Class program will have the skills to operate, maintain and manage machinery and equipment related to power, heat, refrigeration and other industrial industries.

Did you know Fanshawe consistently ranks high in graduation employment rates among large colleges in Ontario?

Here are some examples of career opportunities for graduates of Fanshawe's Power Engineering Techniques – 4th Class program:

Power Plant Coordinator
Responsible for the planning, development, engineering, construction, operation and maintenance of all building, infrastructure, sites and services on campus.

Operating Engineer/Refinery Operator
Responsible for the safe, reliable and efficient operation of the refinery processes and safe operating of boiler and ammonia systems.

Power Engineer
Start up and shut down power plan equipment, regulate water levels, perform routine equipment maintenance and operate automated or computerized control systems.

**Admission Requirements**
OSSD with courses from the College (C), University (U), University/College (M), or Open (O) stream
OR
Academic and Career Entrance Certificate (ACE)
OR
Ontario High School Equivalency Certificate (GED)
OR
Mature Applicant with appropriate preparation

**Approximate Costs**
Fee details are available at www.fanshawec.ca/fees

**Contact**
St. Thomas/Elgin Regional Campus
519-633-2030
stthomaselgin@fanshawec.ca

**Campus Codes and Intakes**

- Program Code: PEQ2S
- Campus Code: ST (St. Thomas)
- Intakes: September
- Number of weeks: 15 week terms
- Academic Calendars available at www.fanshawec.ca/academicdates

**Applicant Selection Criteria**

- Where the number of eligible applicants exceeds the available spaces in the program, the Applicant Selection Criteria will be:
- Preference for Permanent Residents of Ontario
- Receipt of Application by February 1st (After this date, Fanshawe College will consider applicants on a first-come, first-served basis until the program is full)
- Achievement in the Admission Requirements

**English Language Requirements**

Applicants whose first language is not English will be required to demonstrate proficiency in English by one of the following methods:

- A Grade 12 College Stream or University Stream English credit from an Ontario Secondary School, or equivalent, depending on the program's Admission Requirements
- Test of English as a Foreign Language (TOEFL) test with a minimum score of 88 for the Internet-based test (iBT), with test results within the last two years
- International English Language Testing System (IELTS) Academic test with an overall score of 6.5 with no score less than 6.0 in any of the four bands, with test results within the last two years. SDS Program Requirements.
- Canadian Academic English Language (CAEL) test with an overall score of 70 with no score less than 60 in any of the four bands, with test results within the last two years
- Pearson Test of English Academic (PTE) with a minimum score of 59, with test results within the last two years
- A Cambridge English Test (FCE/CAE/CPE) with an overall score on the Cambridge English Scale of 176 with no language skill less than 169, with test results within the last two years
- Fanshawe College ESL4/GAP5 students: Minimum grade of 80% in ESL4/GAP5 Level 9 or 75% in ESL4/GAP5 Level 10

**Program Pathways**
For information about Program Pathways visit www.fanshawec.ca/programpathways.

**Program Curriculum**
**Level 1**
Take all of the following Mandatory Courses:
MECH-1106 Applied Science 1- Credits 2.5
SFTY-1055 Plant Safety & Administration - Credits 4
WELD-1057 Material & Welding - Credits 4
ELNC-3039 Electricity & Controls - Credits 5.5
MECH-1108 High Pressure Boilers - Credits 2.5
MTNC-3006 Types of Plants - Credits 1.5

**Level 2**
Take all of the following Mandatory Courses:
MECH-3049 Lubrication, Pumps & Compressors - Credits 4
MECH-3048 Prime Movers & Engines - Credits 3
MECH-3047 Boiler Operations - Credits 6
REFR-3004 Refrigeration & A/C - Credits 3
MECH-1120 Steam Time Practical Techniques Lab - Credits 2

**Level 3**
Take the following Mandatory Course:
FLDP-5021 Steam Time Placement Credits 12.8

Program Residency
Students Must Complete a Minimum of 13 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program