



DEPARTMENT OF SCIENCE

COURSE OUTLINE – Fall 2024

PW 1420 (A2): Industrial Safety, Legislation, and Codes I – 2 (2-0-0) 30 Hours over 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR: Curran Speager
OFFICE:
OFFICE HOURS:

PHONE:
E-MAIL:

CALENDAR DESCRIPTION: In this course, students will learn about the jurisdictional legislation, codes, and standards for power engineers, as well as plant safety and environmental considerations. They will also gain knowledge of general plant safety, including safety programs, procedures for handling dangerous materials, and fire safety, as well as the environmental impact of plant operation.

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

The following textbook and resource materials are required for the first year of the PET program, including courses PW 1400, PW 1401, PW 1420, IT 1401, PC 1401, PW 1402, PW 1430, and IT 1402. All books are from PanGlobal.org

- 4th Class Textbook Set – Part A [Ed. 3.5]
- 4th Class Textbook Set – Part B [Ed. 3.5]
- Preparatory Math Topics for Power Engineering [Ed. 2]
- Academic Supplement [Ed. 2.0]
- 2018 ASME Academic Extract (Vol 1)



The first 4 books are available as a bundle

4th Class – Standard Collection

<https://mypower.panglobal.org/pshop/4th-class/225-4th-class-standard-collection.html>

2018 ASME Academic Extract (Vol 1)

<https://mypower.panglobal.org/pshop/code-extracts-supplement/198-2018-asme-academic-extract-vol-1.html>

NOTE: Older editions of Power Engineering textbooks are not acceptable. The changes between editions are enough to impact the likelihood of passing the ABSA exams.

DELIVERY MODE(S): Lecture style presentation of material in person at the NWP Grande Prairie campus.

LEARNING OUTCOMES: After completing this course students will:

- Understand jurisdictional legislation, codes, and standards for power engineers.
- Acquire knowledge of power plant and heating plant safety.
- Learn about environmental considerations in power engineering.
- Familiarity with acts, regulations, codes, and standards related to boilers, pressure vessels, and piping.
- Understand the purpose of acts, regulations, codes, and standards in the power engineering industry.
- Utilize safety programs and apply safe handling procedures for dangerous materials.
- Implement fire safety procedures in power, heating, and industrial plants.
- Gain awareness of the environmental impact of plant operation.
- Understand and discuss the effects of gas, noise, liquid, and solids emissions on plant operations.

TRANSFERABILITY: Nontransferable, there are no transfer agreements in place.

EVALUATIONS:

Assignments:	10%
Unit Exams:	40%
Final Exam:	50%

GRADING CRITERIA: Grades for this course will be assigned as a percentage. The minimum passing grade is 65%

COURSE SCHEDULE/TENTATIVE TIMELINE: 15 weeks. Unit exams will be held after chapters and units are completed.

STUDENT RESPONSIBILITIES: Students must attend a minimum of 80% of all classes to successfully complete the course.

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

**Note: all Academic and Administrative policies are available on the same page.