

POWER ENGINEERING

ONLINE INFORMATION GUIDE



KEYANO
COLLEGE
THE ESSENTIAL ELEMENT



Program Overview

The 4th Class Power Engineering online program through iLearn (Moodle) is a system that provides students with a quick assessment of their academic achievement while they process at their own pace, on their own schedule. Students can enroll at any time and have one year from the date of registration to complete both 4th class Part A and B theory. A total of two three-month extensions may be purchased.

The wft workers. Extended hours and the ability for students to access the system from home or work are features designed to make the training as accessible as possible.

The Power Engineering online program provides access to a comprehensive computer question bank designed to highlight subjects in the Alberta Boiler's Branch syllabi. Assessments are generated and marked by the Computer and Power Engineering Instructors. The online program is supplemented by tutorial assistance offered by qualified instructors during posted hours.

Recommended Prerequisites

It is strongly recommended that students have Math 20/23 or Math 20 Applied, Physics 20 or Science 20 and English 20 (Grade 11).

Online CENTRE

Online Power Engineering Office
Room 150 Bob Lamb Building
(Behind Keyano College Main Campus)

Online Centre Hours

Monday thru Friday.....9:00 am- 12:00 pm
..... 1:00 pm – 4:00 pm
Tuesday and Thursday evenings..... 6:30 pm – 9:30 pm

Instructor Assistance

Tuesday and Thursday evenings..... 6:30 pm – 9:30 pm

Contact Information

Online Administrator.....780-791-4904

Email: crystal.mitchell@keyano.ca

Find us on Facebook at:

<http://www.facebook.com/powerengineering>

The Online Centre is closed on weekend and holidays as well as:

July 18, 2011 – August 1, 2011

December 19, 2011 – January 6, 2012

To reset a password or technical problems, email: its.helpdesk@keyano.ca. Include your name, course and student ID#. (available weekdays from 8:30 am till 4:30 pm only)

Application & Fees

Application Process

Applicants wishing to enroll in the Online Program can contact the Online Administrator at 780-791-4904 to make an appointment to enroll in the course.

Fees

(subject to change and GST as applicable)

Application Fees

Domestic Applicants.....\$50.00

Tuition

Power Engineering 4th Class.....\$1005.00

Power Engineering 3rd Class.....\$1,129.00

Power Engineering 3rd Class Part A or B ONLY\$564.50

Fees

Students Association.....\$71.36

Athletic Fees\$30.00

Registration Fee.....\$15.00

Other Expenses

Power Engineering 4th Class Books.....\$724.33

Power Engineering 3rd Class Books.....\$724.33

ASME Extract Book\$211.15

Work Book.....\$179.95

Available at the campus bookstore.

Extensions

A total of two three-month extensions may be purchased when completing Part A and B Theory. **

Extensions.....\$150.00 each

If the course is not completed within the allotted time, the student will be removed from the program. Credit is not given for partial completion.

**Students who only enroll in Part A or B have six months from the date registered to complete Part A or B Theory and may purchase one three-month extension.

Evaluations

The course is set up in sections (ie. 1-20, 21-39, etc.) which correspond with the chapters in your textbook. At the end of each chapter you are required to complete a quiz. Following the completion of each unit you will write a unit test. After completing each section, you will be required to write a section test. Once you have completed section test 2, please make arrangements to write your supervised exam.

You are given three attempts to achieve 80% or better for each online quiz, you must achieve a minimum of 60% to pass each of the four courses (ie: PELM4100, etc.). Please refer to the table below to ascertain at which stage you will write your supervised exams.

Note: you cannot write a supervised exam until you have the required quizzes, unit tests and section tests chapter completed.

| 4th class | |
|------------------------------------|---------------------|
| Part A1 PELM 4100 | Chapters 1-20 |
| | Section test 1 |
| | Chapters 21-39 |
| | Section test 2 |
| | Exam 1 (supervised) |
| Part A2 PELM 4200 | Chapters 40-50 |
| | Section test 3 |
| | Chapters 51-67 |
| | Section test 4 |
| | Exam 2 (supervised) |
| Part B1 PELM 4300 | Chapters 68-83 |
| | Section test 5 |
| | Chapters 84-103 |
| | Section test 6 |
| | Exam 3 (supervised) |
| Part B2 PELM 4400 | Chapters 104-124 |
| | Section test 7 |
| | Chapters 125-144 |
| | Section test 8 |
| | Exam 4 (supervised) |

Supplement Exams

Supplement exams are not permitted on section tests, exams only. Students must apply to write a supplemental exam. There are conditions that students must meet to be eligible. A maximum of two supplemental examinations will be

allowed per calendar year where a calendar year is defined as Sept. 1st to Aug. 31st of the following year. Refer to Credit calendar (pg. 26) for more details.

Evaluation Matrix

| 4th Class Online | | | | | | | | | |
|------------------|----------|---------------|-------|----------------|----------------|----------------|----------------|-------------|------------------|
| Part A | Chapters | # of Chapters | Units | | # of Questions | | | | |
| Part A1 | 1-20 | 20 | 1-3 | Section 1 Test | 57 | Section Test 1 | Section Test 2 | Exam 1 – A1 | PELM 4100 |
| | 21-39 | 19 | 4-8 | Section 2 Test | 60 | 10% | 10% | 80% | S1+S2+E1 |
| | | | 1-8 | Exam 1 – A1 | | | | | |
| Part A2 | 40-50 | 11 | 9-11 | Section 3 Test | 50 | Section Test 3 | Section Test 4 | Exam 2 – A2 | PELM 4200 |
| | 50-67 | 17 | 12-15 | Section 4 Test | 70 | 10% | 10% | 80% | S3+S4+E2 |
| | | | 9-15 | Exam 2 – A2 | | | | | |
| | | | | | | | | | |
| Part B | | | | | | | | | |
| Part B1 | 68-83 | 16 | 16-19 | Section 5 Test | 66 | Section Test 5 | Section Test 6 | Exam 3 – B1 | PELM 4300 |
| | 84-103 | 20 | 20-22 | Section 6 Test | 64 | 10% | 10% | 80% | S5+S6+E3 |
| | | | | Exam 3 – B1 | | | | | |
| Part B2 | 104-124 | 21 | 23-26 | Section 7 Test | 77 | Section Test 7 | Section Test 8 | Exam 4 – B2 | PELM 4400 |
| | 125-144 | 20 | 27-30 | Section 8 Test | 79 | 10% | 10% | 80% | S7+S8+E4 |
| | | | | Exam 4 – B2 | | | | | |

Keyano College Examination Rules

- It is your responsibility to read these examination rules before attempting any supervised exams
- Arrangements for testing must be made at least two business days prior to writing.
- You are required to present proof of identification upon request when writing supervised tests and exams.
- All assessments are subject to time constraints; quizzes are one hour in duration, unit tests and section tests are two hours in duration, and supervised exams are three hours in duration.
- Examination candidates shall furnish their own pens, pencils, drawing instruments, paper, non-programmable scientific calculator and Steam Table book.
- During the examination, the examination candidate shall communicate only with the examiner or proctor.
- No cell phones or electronic devices are to be used.
- At the end of an examination, all examination questions, answers and work sheets must be given to the examiner or proctor.
- Examination marks will not be given out over the telephone.

Course Completion Letter

Upon successful completion of the Keyano College Power Engineering online program the **student must contact the Online Administrator to request a 'Course Completion Letter'**. The student will receive a letter from the Office of the Registrar showing the marks achieved in the program. The student then may send the letter as proof of completion along with the exam application to ABSA in order to write the appropriate ABSA exam.

ABSA Examinations

It is the **student's** responsibility to apply to ABSA for writing provincial examinations. For ABSA examinations, only the approved codes and regulations as allowed by the Boiler's Branch are allowed in the examination room. Permitted references include steam tables, four figure constants, book of diagrams, and code books – but not Sections VI and VII. No other written materials are permitted.

Online Power Engineering students have the responsibility to arrange their own accredited steam time with the Alberta Boiler's Safety Association in order to write Part B exams.

Contact information for ABSA: absa.ca or 1-888-454-3926

1. Finish parts A & B at Keyano
2. Write part A @ ABSA
3. 6 months steam time
4. Write part B @ ABSA

Course Descriptions

PELM 4100 Applied Science

4 credits

Topics include applied mathematics, elementary mechanics and dynamics, elementary thermodynamics, mechanical drawing, administration, industrial legislation, workplace hazardous materials, plant safety and plant fire protection as identified in the Alberta Boilers Safety Association Reference Syllabus for 4th Class Part A Power Engineering.

PELM 4200 Plant Services

4 Credits

Areas covered are environment, material and welding, piping and valves, high pressure boiler design, high pressure boiler parts and fittings, high pressure boiler operation and feedwater treatment as identified in the Alberta Boilers Safety Association Reference Syllabus for 4th Class Part A Power Engineering.

PELM 4300 Steam Generation

4 credits

Course includes prime movers and engines, pumps and compressors, lubrication, electricity, controls, instrumentation and computers, heating boilers, and heating systems as identified in the Alberta Boilers Safety Association Reference Syllabus for 4th Class Part B Power Engineering.

PELM 4400 Prime Movers & Auxiliaries

4 credits

Topics include heating boiler and heating system controls, auxiliary building systems, vapour compression refrigeration, absorption refrigeration, air conditioning, air conditioning systems, boiler maintenance and types of plants as identified in the Alberta Boilers Safety Association Reference Syllabus for 4th Class Part B Power Engineering

iLearn (Moodle) Basics

Within three business days of registering for the course, you will have access to your iLearn course.

The Online Administrator will email your credentials to the account provided. Also included in the email will be a Keyano College Student webmail account - please activate it before entering your course.

To login, open a web browser and enter the URL:
<http://ilearn.keyano.ca>.

Username: is usually your first name followed by a dot followed by your last name followed by the last 3 digits of your Keyano ID. You will be given your Keyano ID when you register at the Office of the Registrar.

Example: Lindsey Smith whose ID is 981234 will have lindsey.smith234

Password: changeme

iLearn forces you to change your default password at the first login. We encourage you to use a strong password.

Accessing Your Email

Step 1: Activate your Keyano webmail account now at <http://www.keyanomail.ca/>

Step 2: click on "Go To Your Inbox" button

Step 3: Enter your Keyano e-mail address (**Donald.Bell123@keyanomail.ca**) and your initial e-mail password. The three digits (ie. 123) at the end of your username is the last three digits of your student ID number. The initial e-mail password has the following format: **firstname_initial\$lastname_initial\$ddmmyyyy**.

Initial E-mail Password Notes:

ddmmyyy is your birth date in numerical values. You must enter the two "S" signs.

Passwords are case sensitive. All characters used in the initial password are lower case.

Example: The password of Donald Bell who was born on 25 September 1990, will be: d\$b\$25091990

Accessing Your Courses

After login, you will be directed to your My Courses homepage. In the center of the page is a list of courses that you are enrolled in that use Moodle. This page will occasionally be updated with global and course-specific announcements. Please check this page for updates before entering your courses.

To enter your first course, click the Course Title PELM 4100.

Other Important Information

Student Orientation to Moodle

In the Student Training Category, there is Orientation to Moodle for Students that will provide you with information on how to navigate in Moodle and how to use Moodle's tools.

Your iLearn Profile

The second thing you must do (after changing your password) is to update your iLearn profile. Check the "Your iLearn Profile" section of the Student Orientation to Moodle course for details.

Browser Compatibility

The preference is to use Internet Explorer 7 or above, or FireFox 3 or above when accessing iLearn.

iLearn materials are guaranteed to work with IE8 and Firefox 3.x with minimum problems. Google Chrome 5.x, OSX Safari, iPad and iPhone Safari and other Smart Phone browsers will work relatively well with iLearn but they will not display the Mini Editor which you may need for some assignments and activities.

Java is needed to use some tools like the Math Editor and others. Some courses might require Adobe Flash to be installed.

Check detailed information about browser settings and compatibilities in the "Browser Settings" block in the Student Orientation to Moodle course.

Logging Out

Be sure to use the LOGOUT text links on the top navigation bars to log out of your course. This step is especially important if you go to any public computer to access your online course.

Support

For course specific questions, please contact the Online Administrator. For technical problems, contact our Help Desk at 780 791-4965 or e-mail its.helpdesk@keyano.ca (available weekdays from 8:30 am till 4:30 pm only)



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