



DEPARTMENT OF POWER ENGINEERING

COURSE OUTLINE – FALL 2012

POF 419 PRIME MOVERS/TYPES OF PLANTS 2.0 (30-0-9) 39

INSTRUCTOR: Augustine Ebinu
Houshang Ghazi

OFFICE: PS 130
PS130

OFFICE HOURS: As posted

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PREREQUISITE(S)/COREQUISITE:

A High School Diploma

- English 20 -1 or 65% minimum in English 20-2
- Math 20-1 (Pure) or 65% minimum in Math 20-2 (Applied)
- Any 20 level Science with 65% minimum
- Career Investigation Report as per specified format

Applicants not meeting the above requirements may request a review of their education and prior work skills by contacting the Registrar's office.

REQUIRED TEXT/RESOURCE MATERIALS:

- PE4B Text (BOOK 1) UNITS 1, 2 & 3
- PE4B Workbook (BOOK 1)
- PE3 Section 4 Chapters 1-6, and 12
- PE3 Section 3 Chapters 12, and 13
- PE3 Section 4 Chapters 8-9
- TYPES OF PLANTS
- PE4B Text (BOOK 2) UNIT 30
- PE4B Workbook (BOOK 2)

CALENDAR DESCRIPTION:

Steam turbines: impulse and reaction, Operation of steam turbines. Gas turbines: open and closed cycles. Air compressors: types and operation, advantages/disadvantages. Internal combustion engines, Introduction to Pump types, classifications and operation, Lubrication principles and types of bearings. An overview of the types of plants that use and employ power engineers; gas plants, refineries, food processing, sawmill, hot oil systems, and pulp mills.

CREDIT/CONTACT HOURS:

2.0 Credits

39 (30-0-9) Hours

DELIVERY MODE(S): Fairview Campus Only

OBJECTIVES (OPTIONAL):

To ensure students gain knowledge of and competence in the operation of the aforementioned processes and machines.

TRANSFERABILITY: As per ABSA requirements

**** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions.**

Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

GRADING CRITERIA:

Method	Percentage	Minimum
Course assignments/workbooks	15%	50%
CML quizzes	15%	50%
Unit Exams	30%	50%
Final Exam	40%	50%
	100%	50%
		65% average, with no mark below 50%

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A⁺	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A⁻	3.7	80 – 84	FIRST CLASS STANDING
B⁺	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B⁻	2.7	70 – 72	
C⁺	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C⁻	1.7	60 – 62	
D⁺	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

EXAMINATIONS: As per Power Engineering Student Manual

STUDENT RESPONSIBILITIES: As per Power Engineering Student Manual

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

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

COURSE SCHEDULE/TENTATIVE TIMELINE:

Nov. 15 - Dec 17, 2012

Monday – Thursday – 08:30 -10:20

Friday - 08:30 - 09:30