DEPARTMENT OF POWER ENGINEERING

COURSE OUTLINE – FALL 2010

POF 419 – Prime Movers / Types of Plants

INSTRUCTOR:	Augustine Ebinu Houshang Ghazi	**PHONE:**	780-835-6692 780.835.6609
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OFFICE HOURS:	As posted		

PREREQUISITE(S)/COREQUISITE:

A high school diploma including:

English 30-1 or 30 -2

Math 30 Pure or Applied, (after 2012 Math 30-1 or 30-2)

Science 30 OR Chemistry 20 OR Physics 20

And a Career Investigation (specified format)

REQUIRED TEXT/RESOURCE MATERIALS:

PE4B Text (BOOK 1) UNITS 1, 2 & 3

PE4B Workbook (BOOK 1)

PE3 Section 4 Chapters 1-6, 12

PE3 Section 3 Chapters 12, 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: 39 Hours

DELIVERY MODE(S): Fairview Campus Only

OBJECTIVES:

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

TRANSFERABILITY: As per ABSA requirements

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%

EXAMINATIONS: As per Power Engineering Student Manual

STUDENT RESPONSIBILITIES: As per Power Engineering Student Manual

STATEMENT ON PLAGIARISM AND CHEATING:

Please refer to pages 49-50 of the College calendar regarding plagiarism, cheating and the resultant penalties. These are serious issues and will be dealt with severely.

COURSE SCHEDULE/TENTATIVE TIMELINE:

Nov. 15- Dec 17., 2010

Monday – Thursday – 08:30-10:20

Friday -08:30-09:30