

**Course Title: Power and Control Laboratory Work**

**Course Code: PCEG 405**

**Credit Hours: 1**

**Course Description:**

This course intends to reinforce the concepts learned in computer based control and switchgear & protection theory classes that have a strong practical applications emphasis, by a series of relevant experiments carried out in the laboratory.

**Course Contents:**

A series of experiments to reinforce the subject matter taught in the course COEG 402: computer Based Control and EPEG 415: Switchgear & Protection. The exact courses covered by laboratory work may vary. The laboratory work can be the followings for the two courses:

Switch Gear & Protection

1. To study the ac, dc, and impulse voltage testing of different insulating materials
2. To determine the resistance of an earth electrode installed
3. To study the performance characteristics of over-current relay
4. To demonstrate the installation and testing of residual current circuit breaker
5. To demonstrate the installation of contactor, and over-current relay
6. Substation visits

Computer Based Control

7. Experiments with PLC
8. Experiments with control of Computer Based System