

Master Syllabus

EET 1139 - Electrical Machinery

Division: Science, Mathematics and Engineering

Department: Electronics Engineering Technology

Credit Hour Total: 3.0

Lecture Hrs: 2.0 **Lab Hrs:** 2.0

Prerequisite(s): EET 1120

Date Revised: March 2015

Course Description:

Basic principle, theory, operation and characteristics of common DC and AC machinery. Two classroom, two lab hours per week.

General Education Outcomes:

- ▣ Critical Thinking/Problem Solving Competency

Course Outcomes:

AC motors

Describe operation and principle of AC motors.

Assessment Method: Locally developed exams

Performance Criteria: 70% of exam items correct

DC generators and motors

Describe operation and principle of DC generators and motors.

Assessment Method: Locally developed exams

Performance Criteria: 70% of exam items correct

Electrical motors

Install new or replace old defective motors including protective circuits and associated wiring.

Assessment Method: Performance appraisals

Performance Criteria: Achieve 6 of 9 possible points on a 3 x 3 Rubric.

Outline:

Electromechanical energy conversion
Machine construction
DC generators and motors
AC alternators, single and polyphase motors
Synchronous, shaded pole, universal motors
AC control and operation
Selection and efficiency