

## 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

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### 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