

## Master Syllabus

### EET 1150 - DC Circuits

**Division:** Science, Mathematics and Engineering

**Department:** Electronics Engineering Technology

**Credit Hour Total:** 4.0

**Lecture Hrs:** 3.0 **Lab Hrs:** 3.0

**Prerequisite(s):** MAT 0200

**Date Revised:** April 2017

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### Course Description:

Electrical components and quantities, voltage, current and resistance, Ohm's law; analysis of series, parallel and series-parallel circuits, circuit theorems, capacitors and inductors, transient response of capacitive and inductive circuits. Three classroom, three lab hours per week.

### General Education Outcomes:

- Critical Thinking/Problem Solving Competency

### Course Outcomes:

#### Measurements

Use DC multimeter and oscilloscope to properly make measurements.

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score higher than 17.5 on a five by five rubric

#### DC relationships and concepts

Apply knowledge of DC relationships and concepts when working in a DC environment.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Earn 70% or higher

#### Simulation software use

Use simulation software to determine an expected reaction to changes in the circuit.

**Assessment Method:** Simulations

**Performance Criteria:** Score "17.5" or better on a five by five rubric

#### Technical communication

Communicate technical information orally and in writing with peers and others.

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score "17.5" or better on a five by five rubric

#### Schematic and circuit relationships

Use the information on the schematic to identify and assess circuits and components.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Earn 70% or better

### Outline:

Electrical components and quantities  
Definitions of voltage, current, resistance and power  
Ohm's Law, Kirchhoff's laws  
Circuit analysis of series, parallel, and series-parallel  
Circuit theorems including mesh and/or nodal analysis  
Properties of capacitors and inductors and their behavior under DC conditions