

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

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

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