

ELET 101C : Circuit Analysis I

Covers basic electric circuit theory, the nature of electricity, resistance, current and voltage. Detailed coverage of topics includes direct current, alternating current, Ohm's law, series circuits, parallel circuits, and energy and power relationships. This course also covers DC circuit analysis techniques including mesh and nodal analysis, and network theorems such as Norton's, Thevenin's, and maximum power transfer. The transient response of capacitors and inductors are discussed when a DC voltage is applied using the circuit and analysis techniques. Additional topics include the discussion of alternating waveform characteristics and analysis of sinusoidal alternating waveforms. Lab experiments are designed to reinforce the classroom work.

Credits 4

Lab/Practicum/Clinical Hours 3

Lecture Hours 3

Recommended Prerequisites

It is strongly recommend that students have previously taken or are concurrently taking ELET 115C.

Prerequisite Courses

MATH 124C

Corequisites

MATH 124C or permission of the department chair. Students must earn a grade of C- or higher in each CPET and ELET course listed as a prerequisite to a subsequent CPET course.