ELEN 50: Electric Circuits I
Lab Schedule
Fall 2020
September 21, 2020 – December 4, 2020

Week #	Lab # / Name	Lab Objectives
1	0 - Introduction to MATLAB	Learn the basics of MATLAB
2	1 - Vectors and Matrices MATLAB	Learn how to use vectors and matrices with MATLAB; use of breadboard; Multisim tutorial
3	2 – Circuits with Series and Parallel Resistors	Familiarize with measurements on electric circuits; use Kirchoff's laws and determine equivalent resistances
4	3 – Wheatstone Bridge	Verify the operation of a Wheatstone Bridge
5	No lab	
6	Project 1 – Optimal Power Delivery	Design a MATLAB code to simulate a power distribution network
7	Project 1 – Optimal Power Delivery	Verify simulation results from previous week with measurements
8	4 – Operational Amplifier Circuits	Design and implement an inverting amplifier according to specifications
9	5 – RC Circuits	Experimentally verify the time constant of a simple RC circuit, and demonstrate a high-pass filter and a low-pass filter
10	Project 2 – Basic Filter Design	Design a MATLAB code to simulate basic active filters, and verify simulation results with measurements