5: ECE Concept #2/4

ECE 403: Homework #5

One report per student (separate pages in OneNote for each student)

Update your OneNote document to include the following for each section (each student):

Specify what ECE concept you're demonstrating you're applying to your part of the design

Apply that concept to your part of the design. For hardware, this typically includes

- Paper design: calculated values and do the analysis showing what the results should be. This often includes Matlab results.
- Simulation: Simulate your design in Circuitlab to verify your calculations are correct.
  Currents, voltages, waveforms, rise-time, bandwidth, etc. match calculations
- Breadboard: Check your results with a breadboard circuit
  Voltages, waveforms, rise times, bandwidth, etc. match simulations and calculations

Update your section of OneNote to include calculations, simulations, code, flow charts, etc. to demonstrate your mastery of this ECE concept.

Grading

- 12 points: Demonstrate A-level knowledge on topic. OneNote presentation demonstrates firm grasp on topic. Typically this would include calculations, simulations verifying calculations, and ideally hardware data.
- 10 points: Demonstrate B-level knowledge on topic. Demonstrate decent knowledge of topic but some area are weak.
- 8 points: Demonstrate C-level knowledge. Missing calculations and/or simulations. Missing explanation of how the circuit and/or program works.
- 6 points: Demonstrate D-level knowledge. Able to simulate a circuit or run a program, but missing explanation of how it works and where values came from.
- 0-4 points: Minimal knowledge of topic demonstrated (or does not demonstrate knowledge of that ECE topic.)