

# ECSE 1010: Proof of Concepts Formatting Checklist

Group Member Names: \_\_\_\_\_  
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Reviewer Names: \_\_\_\_\_  
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Write the names of your group members above, then hand this document and your proof of concept draft to another group so that they can give you feedback on your draft. When you receive this document back from your reviewers, upload it to Gradescope, answer the related questions, and be sure to add all of your group members to the submission.

## General Formatting

- The title of the proof of concept is included
- A schematic of the circuit to be analyzed is included
- A description of the variables to be analyzed is included
- Mathematical analysis, simulation, experimental measurement, and discussion sections are present and in the correct order

## Mathematical Analysis

- The mathematical analysis is legible
- The mathematical analysis is laid out in a logical order and is easy to follow
- Equations for all relevant concepts to be proven are included
- Numerical values* for all relevant concepts to be proven have been calculated

## Simulation

- Schematic and plot backgrounds are set to white for maximum legibility
- Schematic and plot lines have been made thicker for maximum legibility
- All simulation results have been labeled with the names of components or nodes that are also labeled in the circuit schematic
- Axes labels and numbers in the simulation result plots are large enough to read

- The simulation result plot axis ranges are set so that the most relevant parts of the waveforms are visible

**Experimental Measurement**

- A photo of the circuit is included
- Consistent color coding of wires was used on the breadboard
- All relevant sources, measurement locations and components on the breadboard are labeled in the photo of the circuit
- All relevant sources, measurement locations and components on the breadboard are also labeled on the simulation circuit schematic with the same names
- The oscilloscope background is set to white for maximum legibility
- Oscilloscope traces have been made thicker for maximum legibility
- The time (x-axis) scale of the oscilloscope is set so that the most relevant parts of the measurement are legible
- The voltage (y-axis) scale of the oscilloscope is set so that the most relevant parts of the measurement are legible

**Discussion**

- A table comparing the results from mathematical analysis, simulation and experimental measurement has been included
- Reasonable* sources for the error between the mathematical analysis, simulation and experimental measurements have been identified
- The magnitude of the error from these sources of error has been justified

**Additional Feedback or Comments:**

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