**SYSC 3203: Fall 2019**

**Lab 4A Report**

Submit this page to the lab instructor.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**1: Comparator**

1.1: Sketch a circuit diagram for your voltage comparator.

1.2: Sketch a schematic of the chip layout for the LT1011 voltage comparator and labeling the terminals. Please label the testing points for your circuit.

1.3: Demonstrate your working comparator to your TA.

Verified: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date/Time:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2: Trigger Circuit**

2.1: Analyze the trigger circuit to figure out what it does. Draw the Vout signal if a square wave was present at the Vin input.

2.2: Select values for R1, R2, and C1 based on your desired time constant.

2.3: Sketch the circuit diagram for your trigger circuit, showing how it will connect to the voltage comparator.

2.4: Demonstrate your working trigger circuit to your TA.

Verified: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date/Time:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_