



### TEACHING ASSISTANT INFORMATION

**TA:** Rodrigo Ramon  
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**Office Hours:** Zoom | *EC 3860*  
Tuesdays and Thursdays 5-6pm | by appointment  
[Zoom Link](#)  
Meeting ID: **948 9675 0018**  
Passcode: **tByn1t**

### LABORATORY DOCUMENTS

The lab manual and supporting documents will be available on Canvas.

**Note:** Please collect the following devices and kits within the second week of the semester:

- NI myDAQ
- Lab equipment box
- Breadboard
- Wires

### EVALUATION (SUBJECT TO CHANGE)

#### Grade components:

Short lab reports (two lab reports with lowest marks will be dropped)	80 points
Full lab report (for any one of the experiments)	20 points
Total	100 points

Points from the lab activities make up 20% of the course work and will count towards the final grade.

#### Lab report submission policy:

Suggested homework problems will be posted on Canvas. Homework is not graded, but it is important to complete the assigned homework to do well in the course and on the exams.

#### Laboratory portion:

The lab reports must have to be submitted in due time. **Late submissions will only be accepted with prior authorization and documentation.**

#### Group work:

The group of 3 students will be formed for the lab activities.

## ACADEMIC RESPONSIBILITY

1. For individual work submitted, it is expected that each student will submit their group's original work. Any evidence of duplication, cheating or plagiarism will result at least a failing grade for the course.

*"Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of other to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrate respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures, sanctions, as outlines in the Student Handbook."*

2. Classwork assistance will be available on Tuesday and Thursday. Conflicts with work and situations regarding personal decisions are not acceptable excused absences. Unexcused absences will result in the loss of points from your final grade.

## LAB REPORTS

Lab reports must be submitted based on the templates presented in this document.

## SHORT LABORATORY REPORT TEMPLATE

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Page 1

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(Centered in 1<sup>st</sup> page)

EEL 3110C – T-TH 3-4:45 Spring 2022

## Short Lab Report 2

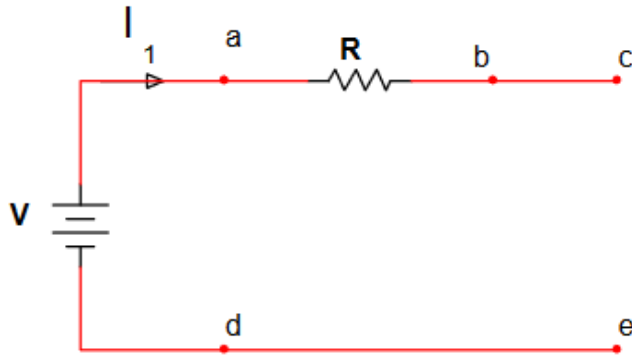
Jane Janes – 1234567

Robert Roberts – 1234567

David Davids – 1234567

(/Centered in 1<sup>st</sup> page)

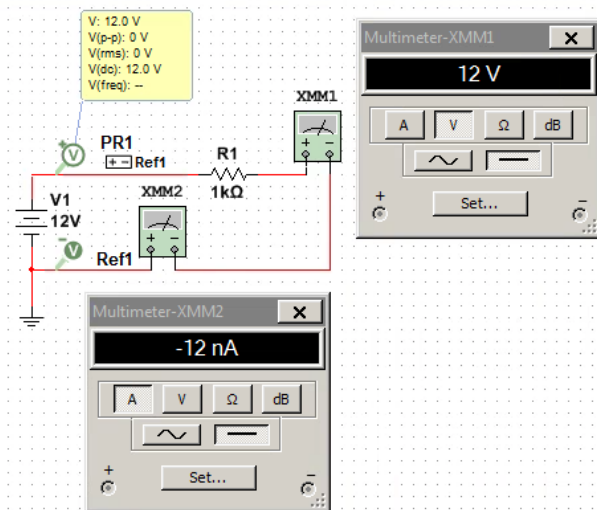
Question 1 –



Settings	Theoretical Results	Multisim Results	MyDaq Results
$V = 5V$ $R = 3.3k\Omega$ ( $\Omega$ )	$V_{ab} = 0V$ $V_{bc} = 0V$ $V_{ce} = 5V$ $V_{de} = 0V$ $V_{ad} = 5V$ $I_1 = 0V$ (If any value is requested without a name (i.e- “find the current and voltage in $R_1$ , they should be named $V_{R1}$ and $R_{R1}$ )	$V_{ab} = 0V$ $V_{bc} = 0V$ $V_{ce} = 5V$ $V_{de} = 0V$ $V_{ad} = 5V$ $I_1 = 0V$	$V_{ab} = 0V$ $V_{bc} = 0V$ $V_{ce} = 5V$ $V_{de} = 0V$ $V_{ad} = 5V$ $I_1 = 0V$

Multisim Capture Requirements

- Full Circuit
- Readings (Multimeter, Probe, Oscilloscope)
- If there are multiple sections with different values, only paste 1 circuit.



### Theory Capture Requirements

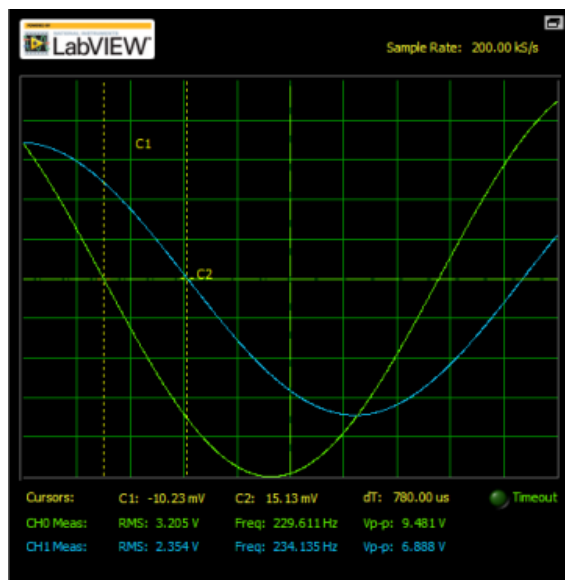
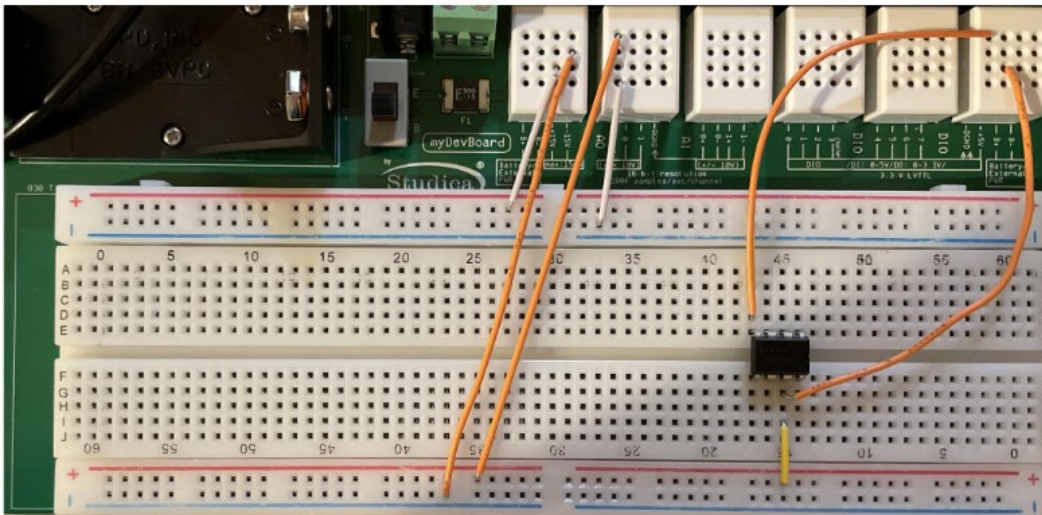
- Work shown to solve the theory as requested
- Work must be fully shown for questions that specifically ask to confirm a theory

Condition	$I$	$I_1$	$I_2$	$V_{ac}$	$V_{cb}$
$R_1 \gg R_2$	$V/R_1$	$V/R_1$	$V/R_1$	$V$	$0 * V$ insignificant
$R_1 \ll R_2$	$V/R_2$	$V/R_2$	$V/R_2$	$0 * V$ insignificant	$V$
$R_1 = R_2$	$V/R_T$	$V/R_T$	$V/R_T$	$V/2$	$V/2$

$R_T = R_1 + R_2$   
[#4 cont.]

### MyDaq Capture Requirements

- Full Circuit (Clear and visible, specifying Op-amp part number if relevant)
- Readings (Multimeter, Oscilloscope)



Briefly Explain – The first 2 voltages are zero because there is no power to the system. The current is  $X$  because of  $X$ .

**IF YOU GET ANY RESULTS WHICH ARE CONTRADICTORY TO THE THEOREMS, USE THIS AREA TO EXPLAIN ANY ABNORMAL RESULTS YOU HAD IN ANY STEP AND WHY YOU BELIEVE THIS HAPPENED.**

## FULL LABORATORY REPORT TEMPLATE AND RUBRIC

### **Title Page:**

1. Course Title and number
2. Experiment Title
3. Experiment Number
4. Date of Experiment
5. Date Report Submitted
6. Name and Panther ID

### **First Page:**

1. Title of experiment and number
2. Objective(s) of experiment

### **Second page and subsequent pages** (each item does **not** have to be in a separate page):

- 1) Procedure (15%)
  - Describe how the experiment was the set up (components, variables to measure, equipment and functions used, etc.)
  - Include all possible diagrams (Block and Schematics) to help explain your procedure.
- 2) Theoretical Analysis (15%)
  - Include the theoretical analysis of the experiment (using a mathematical model approach)
  - Include simulations and/or graphs of the theoretical data
- 3) Experimental Data- Tabulated (15%)
  - Show your experimental data tabulated
- 4) Experimental Analysis of Results (25%)
  - Compare the measured results with the theoretical and simulated ones.
  - Discuss about the mismatch (if any) of the theoretical and experimental results.
- 5) Conclusions (25%)
  - Discuss if the circuit is doing what it is supposed to do, if not explain why. • Check if the objectives are met.
  - Discuss your difficulties and how you overcome them.
  - Describe which experiences you gain from conducting the experiment.
- 6) References used (5%)
  - List every reference that you used or consulted for develop the experiment and the report