ECE 101-201

Introduction to Electrical/Computer Engineering (Lab)

Spring 2018

Tuesday (8:30 AM to 10:20 AM)

Engineering Building, Room 3203

Lab Instructor:
Rohit Chaitanya Kunkumagunta rkunkuma@gmu.edu

Office Hours: Room 3505, Wednesday 4PM-6PM

Lab Learning Assistant: Priyam Das

Lab Policies:

- All documentation related to the labs is posted on Blackboard.
- Attendance in all Labs and exams is mandatory. Notify the GTA in advance if you must miss a lab.
- Notify both the course instructor and the GTA in advance if you must miss a lab exam. Make up exams must be scheduled at least 1 week prior to the exam date. Proper documentation will need to be submitted to the instructor in order to schedule a makeup.
- Lab office hours may be used to practice setting up experiments. They cannot be used as a substitute for the regularly scheduled lab times, for which you are expected to be present.
- If you miss an exam for an unexcused reason you will NOT be given a makeup exam.
- Each student is expected to build the first circuit of each lab and bring the breadboard prior to coming to the lab (except lab # 1). All required simulations listed in the pre-lab portion of the labs need to also be completed and printed out prior to attendance in the lab. The GTA/LAs will review the circuits and simulation results you brought with you at the start of the lab session.
- Failure to build the circuit ahead of time will result in a penalty of 20 points being deducted from the lab report grade.
- Failure to provide print-outs of simulation results listed in the pre-lab will result in a penalty of 10 points being deducted from the lab report grade.
• Each student will work equally with a partner to complete the experiment.
• Learning Assistants (LAs) are undergraduate students who will be present in each lab to assist you and answer any questions you may have.
• Partners will be shuffled after the midterm exam, which means you will work with a new partner for the rest of the semester.
• The lab midterm and final exam will be administered individually, on the scheduled date. They will be for a duration of 50 minutes. The names and times that each person will take the exam will be posted one week before the exam on Blackboard.
• Students must show the GTA the complete operational circuit in the lab in order to receive credit. The GTA may ask questions to assess the student’s understanding of the experimental set-up. The GTA will then sign and date the experiment.
• Lab reports are due one week after the scheduled date of the experiment.
• Lab Reports will not be accepted after one week of the lab.
• Lab Reports must be legible. Carefully follow the Lab Report Format posted on Blackboard, making sure to include all required sections. Print out and bring the report with you on the due date listed below. Lab reports from the previous week are due at the start of the next lab session time.
• The GMU Honor Code applies to all aspects of this lab.

Grading:

- Lab Assignments/reports 50%
- 1 in-Lab Midterm Exam 25%
- 1 in-lab Final Exam 25%

Weekly Schedule:

- January 23rd, 2018 Introduction/Lab rules and safety
- January 30th, 2018 Lab 1: Resistors, Voltage and Current
- February 6th, 2018 Lab 2: Series and Parallel Circuits (Lab 1 report due)
- February 13th, 2018 Lab 3: Light Emitting Diodes (Lab 2 report due)
- February 20th, 2018 Lab 4: Function Generator/Oscilloscope (Lab 3 report due)
- February 27th, 2018 Lab 5: Voltage Rectification (Lab 4 report due)
- March 6th, 2018 Lab Midterm (Practical-In lab)-Labs 1-4
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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>March 12th-18th, 2018</td>
<td>Spring Break</td>
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<td>March 20th, 2018</td>
<td>Lab 6: Simple Filtering</td>
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<td>March 27th, 2018</td>
<td>Lab 7: Transistor Fundamentals (Lab 6 report due)</td>
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<td>April 3rd, 2018</td>
<td>Lab 8: Combinational Logic (Lab 7 report due)</td>
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<td>April 10th, 2018</td>
<td>Lab 8: Combinational Logic (Lab 7 report due)</td>
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<td>April 17th, 2018</td>
<td>Lab 9: Sequential Logic (Lab 8 report due)</td>
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<td>April 24th, 2018</td>
<td>Practice session for lab final (Lab 9 report due)</td>
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<td>May 1st, 2018</td>
<td><strong>Lab Final Exam (Practical-In the lab)-Labs 5-9</strong></td>
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