Laboratory for Classical Physics (II)
PHY 134 Fall 2015

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About

This is the organizational page for the Physics Introductory Labs PHY 133 for Fall 2015.

Instructors

K. Dehmelt
klaus.dehmelt@stonybrook.edu

B. Nielsen
bent.nielsen@stonybrook.edu

A. Deshpande (Principal)
abhay.deshpande@stonybrook.edu

Director of UG Laboratory
Nicole Cronin, Jyoti Biswas, Taeho Ryu, Sonali Gera

Teaching Assistants

Scope

The scope of the introductory labs is to give an understanding of basic experimental methods applied in physical sciences. The experiments performed during the lab sessions are closely related to the topics covered in the lecture.

Overview

You will perform each week an experiment as indicated in the Calendar section. You have 2 hr 20 min time to perform each experiment.

Your performance in the lab session will be evaluated by your teaching assistant. The evaluation is based on an interview that will be verbally conducted during the session and your performance during the experiment that includes a lab report to be submitted as indicated in the Calendar section.

The interview will determine how well you are prepared for that particular experiment which is very important for the successful accomplishment of the experiment. The interview will count 20% toward your grade on the particular lab experiment.

Your performance/report will count 80% toward your grade on the particular lab experiment.

Your lab report should give the reader a chance to get a picture of the experiment and what you have done without having the lab manual in their hand. Your lab report has to have the following format:

1. Title sheet
Name, lab-section, TA name, partner name(s), name of experiment, date

2. **Introduction** [10 pts]
   In your own words: briefly describe the experiment, DO NOT copy the lab manual
   Describe how to perform the experiment with a short sketch and text

3. **Procedure** [20 pts]
   Describe briefly what you have done during the session

4. **Data sheet** [20 pts]
   Include data taken which has been analyzed, clear and neat
   Have your TA signed your data sheet before you leave the lab

5. **Analysis/Discussion** [40 pts]
   Graphs, calculations, uncertainty estimates

6. **Conclusion** [10 pts]
   Brief summary of results: physics implied by the data
   Any caveats or comments

\[ \Sigma [100 \text{ pts}] \]

**IMPORTANT:** You have to submit your lab report the latest 48 hours after you have finished your lab session into the cabinets in room A-131, according to your lab section number. The room is opened on week-days until 10 PM except on Fridays, then at 4 PM. Students in lab sessions that end on or after Wednesdays 4PM have to submit their lab report the following Monday at 10 AM. Please refer to the laboratory schedule for the due date which is showing the week-day after your experiment session and time the lab report has to be submitted.

**Penalties for late submission**
Students who have to submit their lab report in the same week:
- 24 hours late 50% deduction
- 48 hours or more late 100% deduction

Students who have to submit their lab report on Monday at 10AM:
- any time late 100% deduction

You are required to perform each lab experiment by yourself, mostly together with a lab partner.
If you need to be absent for a lab experiment you will have to provide written documentation for a significant reason to be absent, e.g., a medical note from your doctor, a written document about jury duty, and similar. You will then have the opportunity to make up the lab experiment in the dedicated make-up week.
If you are absent for a non-excusable reason your lab grade for that particular experiment will be Zero (0) points!
Calendar

The first lab sessions will take place in the week starting from **Monday, August 31**.

The sequence of Labs in PHY 133 is the following:

Lab 1: August 31 - September 3, 2015 **Electric Field Plotting**

**Holiday week (Labor Day), NO LAB: September 7 - 10, 2015**

Lab 2: September 14-17, 2015 **The Oscilloscope**

Lab 3: September 21-24, 2015 **Capacitors**

Lab 4: September 28 - October 1, 2015 **Ohm's Law**

**Midterm Exam week, NO LAB: October 5 - 8, 2015 Make-up labs 1 - 4.**

Lab 5: October 12 - 15, 2015 **Magnetic Force 1**

Lab 6: October 19 - 22, 2015 **Magnetic Force 2**

Lab 7: October 26 - 29, 2015 **LRC Circuits**

**Midterm Exam week, NO LAB: November 2 - 5, 2015 Make-up labs 5 - 7.**

Lab 8: November 9 - 12, 2015 **Resonances**
Lab 9: November 16 - 19, 2015 e/m of the Electron

Holiday week (Thanksgiving), NO LAB: November 23-26, 2015

November 30 - December 3, 2015: Make-up labs 7 - 9.

LABORATORY SCHEDULE & TEACHING ASSISTANTS:

<table>
<thead>
<tr>
<th>Lab Sec.</th>
<th>When</th>
<th>Where</th>
<th>Teaching Assistant</th>
<th>Lab Report Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>L01</td>
<td>Mon 1:00PM - 3:20PM</td>
<td>PHYSICS A130</td>
<td>Sonali</td>
<td>Wed 3:20PM</td>
</tr>
<tr>
<td>L02</td>
<td>Mon 3:30PM - 5:50PM</td>
<td>PHYSICS A130</td>
<td>Gera</td>
<td>Wed 5:50PM</td>
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<tr>
<td>L03</td>
<td>Mon 6:00PM - 8:20PM</td>
<td>PHYSICS A130</td>
<td>Taeho Ryu</td>
<td>Wed 8:20PM</td>
</tr>
<tr>
<td>L04</td>
<td>Tue 1:00PM - 3:20PM</td>
<td>PHYSICS A130</td>
<td>Jyoti Biswas</td>
<td>Thu 3:20PM</td>
</tr>
<tr>
<td>L05</td>
<td>Tue 6:00PM - 8:20PM</td>
<td>PHYSICS A130</td>
<td>Nicole Cronin</td>
<td>Thu 8:20PM</td>
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<td>L06</td>
<td>Wed 2:30PM - 4:40PM</td>
<td>PHYSICS A130</td>
<td>Jyoti Biswas</td>
<td>Mon 10:00AM</td>
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<tr>
<td>L07</td>
<td>Wed 5:00PM - 7:20PM</td>
<td>PHYSICS A130</td>
<td>Nicole Cronin</td>
<td>Mon 10:00AM</td>
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<tr>
<td>L08</td>
<td>Thu 2:30PM - 4:40PM</td>
<td>PHYSICS A130</td>
<td>Taeho Ryu</td>
<td>Mon 10:00AM</td>
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<td>Sonali Gera</td>
<td>Back to Top</td>
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</tbody>
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Reporting Problems

Please report any problem to either, your corresponding lab instructor, Professor Deshpande, or Professor Dehmelt.