Laboratory for Classical Physics (II)
PHY 134 Spring 2017

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About

This is the organizational page for the Physics Introductory Labs PHY 134 for Spring 2017.

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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.

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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. Each experiment will come with a manual that you can access from this webpage. Your perfomance in the lab session will be evaluated by your teaching assistant. The evaluation is based on the introduction of your lab report that you have to write up and submit to your TA at the beginning of the session and your performance during the experiment that includes a final written report that will be submitted in the week following the lab experiment. Please refer also to Lab Reports.

Your performance/report will count 100%, of which the introduction is worth up to 10%, toward your grade on the particular lab experiment.
Your final grade will be an average from your single lab grades scaled by a factor that will be determined at the end of the semester. This final grade will be a letter grade ranging from A to F.

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. You should not copy excerpts from the manual or only refer to passages in the lab manual. The 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

   Σ [100 pts]

IMPORTANT: You have to submit your first lab report 48 hours after your lab experiment finished. Please refer to your Teaching Assistant for details. For and after your second experiment you have to

submit your lab report the latest at the beginning of the next lab session following the experiment performed.

Penalties for late submission

Any lab report submitted after that deadline will not be considered and receive zero points for the lab experiment.

Please refer also to Lab Reports.

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. You have to arrange with your TA that make-up session.
If you are absent for a non-excusable reason your lab grade for that particular experiment will be Zero (0) points!

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Calendar

Here is the [TENTATIVE until January 23] schedule of labs for the semester.

The first lab sessions will take place in the week starting from **Monday, January 23.**

Lab 0: January 23 - January 27 Introduction to the laboratory and Uncertainty, Error & Graphs

Lab 1: January 30 - February 03 Electric Field Plotting

Lab 2: February 06 - February 10 The Oscilloscope

Lab 3: February 13 - February 17 Capacitors

February 20 - 24: Make-up Lab Week for Labs 1 - 3. No lab classes.

Lab 4: February 27 - March 03 Ohm's Law

Lab 5: March 06 - March 10 Magnetic Force 1

March 13 - March 17 SPRING BREAK: No lab classes.

Lab 6: March 20 - March 24 e/m of the Electron

Lab 7: March 27 - March 31 Magnetic Force 2

April 03 - 07: Make-up Lab Week for Labs 4 - 7. No lab classes.

Lab 8: April 10 - April 14 LRC Circuits

Lab 9: April 17 - April 21 Resonance

Lab 10: April 24 - April 28 Interference

May 01 - 05: Make-up Lab Week for Labs 8 - 10.

LABORATORY SCHEDULE & TEACHING ASSISTANTS:

Updated January 22, 2017

Section	When	Where	Teaching Assistant
PHY134 L01	Mo 12:00pm - 2:20pm	A-116	Jose Miguel Bautista
PHY134 L02	Mo 12:00pm - 2:20pm	A-130	Kaushik Roy
PHY134 L03	Mo 2:30pm-4:50pm	A-116	Yanzhu Chen
PHY134 L04	Mo 2:30pm-4:50pm	A-130	Jose Miguel Bautista
PHY134 L05	Mo 5:00pm - 7:20pm	A-116	Linfeng Mu
PHY134 L06	Mo 5:00pm - 7:20pm	A-130	Yanzhu Chen
PHY134 L07	Tu 12:00pm-2:20pm	A-116	Mukul Sholapurkar
PHY134 L08	Tu 12:00pm-2:20pm	A-130	Kaushik Roy
PHY134 L09	Tu 2:30pm-4:50pm	A-116	Mukul Sholapurkar
PHY134 L10	Tu 2:30pm-4:50pm	A-130	Sergey Martynenko
PHY134 L11	We 2:30pm-4:50pm	A-116	Michael Cochran
PHY134 L12	We 2:30pm-4:50pm	A-130	Sergey Martynenko
PHY134 L13	We 5:00pm - 7:20pm	A-116	Michael Cochran
PHY134 L14	We 5:00pm - 7:20pm	A-130	Julio Virrueta
PHY134 L15	Th 12:00pm-2:20pm	A-116	Sonali Gera
PHY134 L16	Th 12:00pm-2:20pm	A-130	Xiangdong Li
PHY134 L17	Th 2:30pm-4:50pm	A-116	Xuanhua Wang
PHY134 L18	Th 2:30pm-4:50pm	A-130	Linfeng Mu
PHY134 L19	Th 5:00pm - 7:20pm	A-116	Sonali Gera
PHY134 L20	Th 5:00pm - 7:20pm	A-130	Julio Virrueta
PHY134 L21	Tu 8:00am - 10:20am	A-116	Dallas DeMartini
PHY134 L22	Tu 8:00am - 10:20am	A-130	Xuanhua Wang
PHY134 L23	Th 8:00am - 10:20am	A-116	Dallas DeMartini
PHY134 L24	Th 8:00am - 10:20am	A-130	Xiangdong Li

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Reporting Problems

Please report any problem to either, your corresponding lab instructor or Mr. Lefferts.

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