Department of Physics and Astronomy

Laboratory for Classical Physics (I)
PHY 133 Fall 2016

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About

This is the organizational page for the Physics Introductory Labs PHY 133 for Fall 2016.

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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 an interview that will be conducted in form of a quiz at the beginning of 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 quiz will count 10% toward your grade on the particular lab experiment.

Your performance/report will count 90% 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

The first lab sessions will take place in the week starting from **Monday, August 29.**

Lab 0: August 29 - September 01 Introduction to the laboratory and Uncertainty, Error & Graphs

September 05 - 08: Labor Day Week. No lab classes.

Lab 1: September 12 - 15 The Pendulum

Lab 2: September 19 - 22 Acceleration

Lab 3: September 26 - 29

October 03 - 06: Make-up Lab Week for Labs 1 - 3. No lab classes.

Lab 4: October 10 - 13

Lab 5: October 17 - 20

Lab 6: October 24 - 27

Lab 7: October 31 - November 03

November 07 - 10: Make-up Lab Week for Labs 4 - 7. No lab classes.

Lab 8: November 14 - 17

November 21 - 24: Thanksgiving Week. No lab classes.

Lab 9: November 28 - December 01

Lab 10: December 05 - 08

December 09: Make-up Lab Day for Labs 8 - 10.

LABORATORY SCHEDULE & TEACHING ASSISTANTS:

Please note that some sections are not ordered in time.

Section	When	Where	Teaching Assistant
PHY133-L01	Mo12:00PM-2:20PM	A-117	Mael Flament
PHY133-L02	Mo12:00PM-2:20PM	A-126	Hui Li
PHY133-L03	Mo2:30PM-4:50PM	A-117	Mukul Sholapurkar
PHY133-L04	Mo2:30PM-4:50PM	A-126	Dallas DeMartini
PHY133-L05	Mo5:00PM-7:20PM	A-117	Hui Li
PHY133-L06	Mo5:00PM-7:20PM	A-126	Di Wang
PHY133-L07	Tu8:00AM-10:20AM	A-117	Yihong Wang
PHY133-L08	Tu8:00AM-10:20AM	A-126	Dallas DeMartini
PHY133-L09	Tu12:00PM-2:20PM	A-117	Sergey Martynenko
PHY133-L10	Tu12:00PM-2:20PM	A-126	Linfeng Mu
PHY133-L11	We12:00PM-2:20PM	A-117	Mael Flament
PHY133-L12	We12:00PM-2:20PM	A-126	Linfeng Mu
PHY133-L13	Tu2:30PM-4:50PM	A-117	Jun-sik Yoo
PHY133-L14	Tu2:30PM-4:50PM	A-126	Julio Moreno Virrueta
PHY133-L15	Tu5:00PM-7:20PM	A-117	Yanzhu Chen
PHY133-L16	Tu5:00PM-7:20PM	A-126	Mukul Sholapurkar
PHY133-L17	Th8:00AM-10:20AM	A-117	Tyler Ellison
PHY133-L18	Th8:00AM-10:20AM	A-126	Yihong Wang
PHY133-L19	We2:30PM-4:50PM	A-117	Sahal Kaushik
PHY133-L20	We2:30PM-4:50PM	A-126	Norton Lee
PHY133-L21	We5:00PM-7:20PM	A-117	Yanzhu Chen
PHY133-L22	We5:00PM-7:20PM	A-126	Norton Lee
PHY133-L23	Th2:30PM-4:50PM	A-117	Xuanhua Wang
PHY133-L25	Th12:00PM-2:20PM	A-117	Tyler Ellison
PHY133-L26	Th12:00PM-2:20PM	A-126	Sergey Martynenko
PHY133-L28	Th2:30PM-4:50PM	A-126	Julio Moreno Virrueta
PHY133-L29	Th5:00PM-7:20PM	A-117	Di Wang
PHY133-L30	Th5:00PM-7:20PM	A-126	Xuanhua Wang
PHY133-L31	Mo7:30PM-9:50PM	A-117	Jun-sik Yoo
PHY133-L32	Mo7:30PM-9:50PM	A-126	Jonathan Pachter
PHY133-L33	Tu7:30PM-9:50PM	A-117	Jonathan Pachter
PHY133-L34	Tu7:30PM-9:50PM	A-126	Sahal Kaushik

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Reporting Problems

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

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