

# Physics Lab Syllabus

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## 1. Purposes of my lab

The lab part of physics class is basically supplemental to understand the lecture part. The main objectives are following:

- To preview or review the lecture class
- To learn and execute science through the experiments
- To visualize physics and the related phenomena
- To make boring physics enjoyable

## 2. Your preparation

Please read this syllabus thoroughly. I will grade by following the rules. They mostly come from the department and university rules. If you are not sure about something, you will ask the instructor questions directly. The data sheets are posted on the above web page ([www.uidaho.edu/~shim9213](http://www.uidaho.edu/~shim9213)), so please visit and print out before coming to the labs.

In general, you will use these supplies during or after labs:

- ✓ Pencils, graph papers, ruler, protractor, calculator, stapler, lab manual, etc.

I recommend you have those by yourselves for the appropriate study. However, sometimes those will be provided.

## 3. Very important notes

If you ignored this item, you would be troubled during the semester. So please read following carefully.
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- ☑ Please finish every calculation before you leave. That will be recognized as no attendance of the lab if you do not calculate and compare with theories during lab.
- ☑ Please try to come to the lab on time. If you are late more than 20 minutes, you will have to make it up later. However, it does not mean that you can be late until 20 minutes.
- ☑ Please attend totally 13 labs including make-up labs. Otherwise, it will result in a lowering of the laboratory grade by one letter grade per missed activity. Do not copy the other's data and pretend to have attended the lab.
- ☑ Please submit totally 13 reports. This is the least condition to get an A.
- ☑ Please write up the reports appropriately. Turning in only data sheets or without doing questions will be recognized as no submission. Also if you write down different things for a lab, it will be zero point. However, you will be able to redo the reports.
- ☑ Please try not to put the reports into my mail box without my permission. Even if you have my permission, to make sure the place of the box is your responsibility. So if you are unsure about that, just keep them with you and tell me. Also do not slide the papers under the door. Those might be thrown away.

## 4. Lab procedure

In general, the labs are conducted as follows:

- Listening to a short lecture by the instructor

- Doing the experiments in groups
- Taking data and calculating them
- Having signature from the instructor (permission to finish)
- Putting the apparatus in order appropriately

◆ Requests from Physics Department

- Please work labs in, at most, 3 people for one table.
  - Please treat the lab equipment gently and appropriately.
  - Please think about your neighbors. Talking loudly during the instructor's speech, listening to music with doing experiments, and improper deed toward other people are not recommended.
- ☞ Thank you for your cooperation ☞

◆ Hints from TA

- Share the calculations with the other member. It makes labs easier, and you could avoid carefree calculation mistake.
- Ask TA questions.
- Make sure each step of an experiment.
- Listen to TA's instruction carefully. There are a lot of clues to obtain the better results.
- Cooperate the work with the other group members.

During the lab I am available to answer your questions and help you solve any problems you may have.

## 5. After the class

Let me initial your data sheet to confirm your participation. Before you leave, put the equipment, apparatus, etc. back to their initial places, clean the table. Please do not leave the room without doing those. To have my initial, you have to obtain the appropriate results.

## 6. Missed labs

The make-up lab(s) will be held in the last week(s) of this semester at the same time and same place. You do not have to have any excuse to make up the missed lab(s). However beyond this one, you need to have legitimate and verifiable excuses to make up more labs.

◆ Certificates for missed labs

Sometimes you may have to be absent from the labs due to terrible flu, attending university activities, some emergency, and so on. In those cases, you have to have a certificate and come to see me. I will arrange the make up. You will need a medical certificate for the illness, a certificate from the adviser for the field trip, a certificate from the coach for the sport activities, a certificate from the registrar's office for family emergency, etc.

◆ Alternative way to make up missed labs

If you are going to do the lab in another section also taught by me, just walk in. If it is taught by another instructor, please contact me before hand. (This is not applied to summer session.)

## 7. Final Grade

Your final grade is based on the total points you earn from the graded lab reports. 92.5%+ :A, 85%+ :B, 75%+ :C, 65%+ :D, under 65% : F.

# About Lab Report and Grading

## General information

- There is NO point awarded if you attend the lab but does not write a report on it.
- Please turn in labs on next week lab. Please do NOT put them in my mail box.
- More than half of the points should be awarded for your reasonable efforts on a lab
- Please keep your graded reports and data sheets, which are the only evidence for your grade.

## Format

A lab report will be graded 20-point scale. You should write down at least these:

- **Title** 5%  
Please include your name and section.
- **Introduction** (should be typed.) 5%  
Summary of the experiment, purposes, equipment set up, procedures etc. (You should refer to the TA's lecture on the lab to write this.)
- **Data sheet (Results)** (needs my signature) 20%  
Please fill out all assigned items.
- **Calculation** 15%  
You do NOT have to type. I want to know how you got the results. So scratch papers are fine sometimes. You can attach the paper to the report. If you use some software on computer, please specify the name, and tell me about the procedure to get the results briefly.
- **Ponder the provided questions** 25%  
Please be sure to address to the questions provided on the data sheets.
- **Conclusions and Discussion** (should be typed) 30%  
You are supposed to write up: error analysis, causes of errors, comparison between theories and experimental results, things you learned, suggestions improving labs, connections between an experiment and your daily life experiences, things you did not understand, and answers or discussions of questions provided on a data sheet.

**Note:** You can discuss with your friends, and share the calculation, but please write reports in your own words.

## Grading

I want to evaluate your efforts to understand. I will not subtract any points from misunderstanding. So if you write all items above, probably you will get almost 100%. The reports will be evaluated by various ways (rubrics). You will be able to enhance your abilities.

## Lab Report Due Dates and Deduction

Reports are due one week from the day they are performed at the START of the laboratory session. Late reports will be penalized as follows:

- 1 day to 1 week late: 2 points deducted.
- 1 week to 2 weeks late: 5 points deducted.
- 2 weeks to 3 weeks late: 10 points deducted.
- more than 3 weeks late: reports not accepted.