

**Physics 1408 Lab/Recitation** Section Number: \_\_\_\_\_

Lab/Recitation Coordinator: Dr. Soyeun Park Section Instructor: \_\_\_\_\_

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*Laboratory Manual Principles of Physics I Physics 1408* (ISBN 1-58874-629-1) is available at all 4 bookstores, prices may vary.

Lab	Date	Activity
1	Aug 25-29	Error Analysis and Mass Determination Discussion of Recitation portion of the lab Pre-test
	Sept 1-5	Labor Day NO LAB MEETINGS
2	Sept 8-12	Instantaneous Velocity and Constant Acceleration Recitation
3	Sept 15-19	The Ballistic Gun: Projectile Motion Recitation
4	Sept 22-26	Newton's Second Law Recitation
5	Sept 29-Oct 3	Uniformly Accelerated Motion: A Freely Falling Body Recitation
6	Oct 6-10	Conservation of Energy Recitation
7	Oct 13-17	Conservation of Linear Momentum Recitation
8	Oct 20-24	Rotational Motion Recitation
9	Oct 27-31	Static Equilibrium Post-test Recitation (if time allows)
10	Nov 3-7	Fluid Mechanics Recitation
11	Nov 10-14	Simple Harmonic Motion Standing Waves of Sound Recitation
12	Nov 17-21	Standing Wave in Strings Recitation
	Nov 24-28	Thanksgiving NO LAB MEETINGS
	Dec 1-3	Last Week of Class NO LAB MEETINGS

Each student is expected to:

1. Prepare beforehand by studying the Lab Manual and preparing for the lab you will be doing. Purchase a current manual. It is updated and revised yearly; prior years' manuals are obsolete.
2. Exercise care with the equipment. You are accountable for damage from willful misuse. **NO FOOD OR DRINKS ARE ALLOWED IN THE LABS.**
3. Attend all labs. Each lab supplements what is taught in the lecture. There will be no lab make-ups. The lowest grade will be dropped at the end of the semester to accommodate legitimate absences.
4. Before leaving the lab, show your data to the instructor and obtain his/her signature on the data table in the manual.

Lab Grade is determined by Reports two-thirds and Participation one-third. We will use a grading scale of 50 D; 65 C; 80 B; 90 A.

Laboratory Reports: Write your report as required in the manual or as discussed in more detail by your instructor. Minimal lab reports include

- a. Short summary of the objective of the experiment and how the measurements were made.
- b. Presentation of your measurements and other data in well-organized form. Enter the data in a table (in the manual) for results whenever possible.
- c. Show your calculations in the lab report.
- d. Discuss the experimental errors and clearly present your results with error estimates.
- e. Include units for all numerical results.
- f. Discuss your results and draw conclusions from your results.
- g. Answer all questions asked in the manual and number them accordingly.
- h. The reports should be well organized and concise. Expect a lower grade for poor presentation (sloppy measurements and data handling).
- i. The reports are always due at the beginning of the next laboratory session.

Participation in the lab and the recitation means you are actually involved in all aspects of the instruction. Various you will be doing lab exercises, collecting data, reasoning out what is happening, writing it all up for submission, solving problems related to your homework assignments as a table group, presenting your solutions to the class as a whole, and defending your reasoning. Problem solving is a major part of this course. It is a vital part of the education of any scientist or engineer. To some extent this is the course where you first formalize that process. Then you'll use it for the rest of your career.