**University of Mississippi**  
*General Physics Laboratory Policy*

**Attendance** is mandatory. You must attend the section for which you registered. A grade of zero is given for each experiment, pre-lab, quiz, and/or report that is missed. There will be one dropped report grade.

Because the lab instructor covers important information at the beginning of each experiment, tardiness will be penalized.

**Data** must be initialed by your instructor at the end of each experiment.

A **typed report** is required. It must be an individual, not team, effort. Any exception will be announced by your lab instructor. A grade of zero will be given to every participant of unauthorized duplication. You will be a team of at least two members; graphs are excluded from the duplication rule.

Reports are due at the beginning of lab. Late reports will be penalized. Up to 24 hours late the penalty is 10% of the earned grade. Up to 48 hours late the penalty is 30% of the earned grade. No credit will be given for reports turned in after 48 hours.

A **lab final** is given during the last class of the semester (same time and location as your regular lab). There will be no review session. An equation sheet will be provided.

The exam will require that you answer questions using experimental procedures and equipment that you have been introduced to during the semester. The particular experiments will be announced during the first class session.

You must also demonstrate your skills with certain equipment. A minimal list follows:

<table>
<thead>
<tr>
<th>1st and 2nd Semester</th>
<th>2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial-O-Gram Balance</td>
<td>DMM (Digital Multi-Meter)</td>
</tr>
<tr>
<td>Vernier Caliper</td>
<td>Oscilloscope</td>
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Laboratory Introduction

The purpose of the laboratory is three-fold:

- To allow you to gain experimental skills in the laboratory using hands-on techniques.
- To reinforce material covered in lecture by performing experiments that emphasize fundamental concepts of physics.
- To improve your skills in the writing of scientific reports.

In order to achieve these objectives, you are expected to do the following:

(1) Always read the laboratory experiment before lab. Relevant sections in your text that pertain to the experiment are noted. Material for quizzes will be taken from the experiment, pre-labs, and reading sections of your text. Pre-Labs enhance your understanding of the lab, and should be completed before class. They are online at the following sites:

http://www.olemiss.edu/depts/physics_and_astronomy/courses/phys223.


(2) Always bring your text with you to lab.

(3) Bring your laboratory notebook (composition notebook), in which you record your data and observations, in pen. Data tables will not be provided for you; make appropriate tables and charts in your notebook. If you make a mistake while recording your data, draw a single line through the error, then record again close by. This data will be used to write your lab report. Be sure you have, and understand, all pertinent information before leaving lab.
(4) Type an individual lab report. A sample format follows. Your instructor will inform you of the specifics required for your section. Answer the questions at the end of each experiment. Show your work.

Resources

In addition to your professor and teaching assistant (TA, i.e., instructor), the Department of Physics and Astronomy provides “The Physics Learning Center” (a.k.a. Tutoring Room) located in Lewis Hall, Room 104. A tutoring schedule is posted early in the semester. Tutors are upper division physics majors, physics graduate students, lab physicists, and professors. Self-help materials are also provided (computers with tutorials and software, printer, videos and laser disks). Please ask for assistance if needed. Each Laboratory Physicist and every TA has a web site where relevant and useful information can be found. Your TA will inform you of the URL for their web site. The laboratory physicist web sites are:

http://www.phy.olemiss.edu/~thomas/

http://www.phy.olemiss.edu/~broberts/

These sites include links to the lab procedures, lab calendar, changes to the calendar, tutoring schedule, pre-labs, tutorials, and miscellaneous information.
Lab Report

Laboratory reports should be written in the passive voice and in the third person. For example, you would write “the measurement was taken” or “the slope of the line was calculated” rather than “I made the measurement” or “My lab partner calculated the slope”. You are trying to convey to someone else what happened in the lab at some previous time. When writing your report think of this “someone” not as your lab instructor, but as a person who has some knowledge of physics but was not present in the lab and has never performed the experiment before. You do not need to write a textbook for this person, just a clear and concise report.

FORMAT (Sample)

TITLE
ABSTRACT – State the theory, define the terms, explain any mathematical relationships, and state the objective.
RESULTS – Selected, organized data in a format provided by your TA.
DISCUSSION OF RESULTS – Was the theory verified? Was the objective accomplished? State sources of uncertainty, and ways to reduce them. Discussion topics will be supplied by your TA.
EQUATIONS – All equations used during the experiment, plus the main equation.
GRAPHS – Attach any graphs.
QUESTIONS – Answer the questions found at the end of each experiment.

Re-state the question using complete sentences; show your work.