

Laboratory Information

SAFETY

Students must follow all posted safety rules and precautions and those announced by the TA.

There are signs posted in the lab rooms and in the hallways leading to the lab rooms that state:

NO FOOD OR DRINKS ALLOWED IN THE PHYSICS LABORATORY.

This means sandwiches, chips, sodas, drinking water bottles, etc., must be kept *outside the lab room* at all times. This is a safety issue and a safety rule that the TAs will strictly enforce.

Other safety requirements include: No unauthorized experiments in the laboratory; No horseplay in the laboratory; Shoes must be worn in the lab room; No rollerblades, bikes, or skateboards allowed in the lab room; No students allowed in the lab room without a TA present.

Laboratory Safety Agreement

*Note: Before a student is allowed to enter and participate in the laboratory experiments in a laboratory room, the Laboratory Safety Agreement (LSA) found in **Howdy** during registration for the course must be signed. Failure to comply with this requirement means that a student is barred from the lab room until such time that the agreement is signed. The agreement is shown below.*

By signing this form, I verify that I have read, understood, and agreed to follow the safety regulations required of this course, as established by the Department of Physics and Texas A&M University. No drinks, food, or tobacco products are allowed in the laboratory room. While in the laboratory room, improper conduct or horseplay that may endanger others or me will not be tolerated. No unauthorized experiments are to be performed in the laboratory. I agree to follow any other instructions given by the laboratory instructor.

I may be dismissed from the laboratory for failure to comply with stated safety regulations. If I am dismissed for safety violations, I will be awarded a zero for the day's work and will not be allowed to make up the work.

Other Safety Issues

A periodic walk-through of all the lab sessions will be done during the semester to ensure that safety procedures are being followed. Violations of safety protocols will be noted and steps taken to correct the problem (see 2nd paragraph in LSA above).

Emergencies: In case of an emergency and the emergency alert is activated, directions will be

announced on the loudspeakers.

The evacuation routes are shown on a plaque located near the two elevators on the 2nd floor of this building. If an evacuation is required, follow the evacuation routes and proceed to the meeting place that is announced by the TA.

RECITATION AND LAB SCHEDULES

The laboratory associated with this physics course consists of a recitation session (one hour) and a laboratory session (one hour and fifty minutes). The recitation session meets in a small classroom on the third floor of the George Mitchell building (MPHY) during the first hour. During this time, a teaching assistant (TA) or faculty member interacts with the students on lecture and laboratory questions and possibly gives quizzes. Immediately after recitation, all the students and the instructor will go down to the lab room on the second floor of the Mitchell building for the experimental portion of the lab course.

Note: Students must wait outside the lab room until the TA comes and opens the door.

If a recitation instructor or lab TA does not show up (within 15 minutes of the starting time), contact the staff in room MPHY 224. Efforts will be made to contact the instructor of that section.

A posting of the lab schedule for physics courses may be found on a bulletin board outside the physics office on the first floor of the Mitchell building. On this lab schedule, the recitation room number and laboratory room number for all the laboratory sections will be listed. Students should check the laboratory schedule for the date and time of their first meeting session. (Lab schedules will also be available in class, through the class web site. See your instructor for details.)

All students must be registered for the physics course in order to attend any lab sessions. If the student's name does not appear on the class roster for the course, that student may not attend the lab until properly registered. If a student drops the course, he or she may not continue attending the lab.

LAB SESSION

Students must be prepared for every lab meeting. This means *reading* the experiment material in the lab manual¹ on WebAssign's website² before coming to lab, bringing the required supplies to the lab room, and having a fair understanding of what is to be covered in the lab experiment. You must complete a short online quiz concerning the lab for that week before you will be allowed to attempt the in-class lab. The questions on these quizzes should be easy to answer if you have read the lab write-up before you attempt the quiz.

Students must not misuse the equipment. If the equipment is not working, let the TA know immediately. If the TA finds that the lab procedure is not the cause of the problem, the TA will try to find a substitute set of equipment to use. Students should not take any equipment from

¹../index.html

²<http://www.webassign.net/>

another table without permission from the TA first. If equipment is moved, it should be returned at the end of the lab session. In any case, equipment may not be taken out of the lab room.

Students should ensure that all the experimental equipment and supplies are left in a neat order on the lab table before leaving the lab room. If an outline sheet of paper with symbols of the apparatus used in the lab experiment is taped to the lab table, be sure to return all the apparatus parts to this sheet. The lab chairs should also be replaced in their proper place under the table. This will make it easier for the next group of lab students that use the workstation.

LAB REPORT

You will be able to view the lab report template (worksheet) for the experiment you are to do before attending the lab as part of the lab preparation. You might want to print out a copy of the lab template to help guide you through the lab completion and submission process. The lab TA will discuss any issues worthy of note before the lab begins and also discuss the types of results expected from each experiment. It should be noted that all the experiments in this manual contain a lab report template, but the actual submission of your lab report will be through the WebAssign³ online portal. As mentioned earlier, this template will be useful for reminding you of the necessary data to be recorded, as well as the questions and analyses that will need to be completed before you can submit your lab report for grading. A single lab report will be completed and submitted by your lab team **before** you leave the lab room *at the end of each laboratory session*. These lab submissions along with the prelab and postlab quizzes will be graded online and your total lab grade will be composed of each of these elements. (See your instructor's plan for constructing your class' lab grade using these elements.) Your grades will be reported to you once the assignment due date has passed.

Answer the questions in the lab report in complete sentences. (The use of incomplete statements such as “yes” or “no” or “cannot be determined because of errors” are not acceptable.) Do not forget graphs or units where required.

DEMO LABS/EXAM REVIEW/PROBLEM-SOLVING SESSIONS

The lab schedule may list several different types of sessions during the lab meetings. For the demo lab sessions, only one setup of the experiment will be set up in front of the lab room. The TA will perform and demonstrate the experiment, while the students record all the measurement data necessary to carry out analysis of this experiment. A lab report may or may not be required for these activities. For the exam review/problem-solving sessions, the TA will cover lecture material (as provided by the lecturer). Check with the TA of your section to see how this session will be conducted.

MISSED LABS

If a student misses a lab (or believes he/she will have to miss a lab due to a university-excused absence), that student should try to find another section during that same week to do the lab experiment. The student should get prior approval from her/his TA to do this. Near the end of the semester, a makeup week may be scheduled. During this makeup week period, only one missed lab will be allowed to be made up. Missing more than one lab may result in a zero for that lab and/or an incomplete for the lab. Check the syllabus of your lecturer for additional details.

³<http://www.webassign.net>

FEEDBACK

In order to continue making improvements to this lab manual, feedback from the students is important. Constructive comments are appreciated and should be submitted to the TA or the lab coordinator.