

Student Guidelines

General Information

My instructor:

My seat number:

Lab Homepage: <http://www.phys.ufl.edu/courses/labs/>

Canvas Homepage (prelab assessments): elearning.ufl.edu

Supervisor: contact person for make-ups:

Mr. Charles Parks

Room 1227A NPB

Phone: 392-0516

email: parks@phys.ufl.edu

Director:

Dr. Robert DeSerio

Room 1236 NPB

Phone: 392-1690

email: deserio@phys.ufl.edu

Welcome

Physics is an experimental science. When several physical theories compete for acceptance, the choice goes to the theory that best explains experiments. In this class you will learn some fundamental aspects of experimental physics. You will

- observe physical phenomena in more detail than can be done in lecture.
- work with scientific equipment.

- learn how to compare experimental results with theoretical expectations.

We welcome suggestions and criticisms about the labs. The evaluation form that follows these *Guidelines* can be used for this purpose. You can also address your comments directly to Mr. Parks or Dr. DeSerio. Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at evaluations.ufl.edu. Evaluations are typically available near the end of the semester, but students will be emailed when they are open. Summary results of these assessments are available to students at evaluations.ufl.edu/results/. Of course, the quality of your educational experience will depend on your attitude and effort.

Lab Manual

The lab manual is specially tailored for our labs. You must purchase a new lab manual as it is updated each semester.

The experiments are **not** performed in the order in which they appear in the lab manual. In the manual, they are arranged according to their two-letter code. They are performed in the order and on the dates specified in *Laboratory Schedule* near the front of the manual. Be sure to follow the schedule for your course. Remove the schedule for other courses.

Attendance

You must **attend the lab section** you are registered for. Each lab session lasts for two periods. It is vital that you **arrive at the beginning of the period** so that you have the best opportunity to finish the experiment. Instructors will use their discretion to decide whether a student late for class will be permitted to stay.

Absences & Make-ups

All lab sessions count. It is the student's responsibility to take care of absences by speaking with the lab supervisor who will decide whether or not a make-up will be provided. Lab instructors are not involved in scheduling make-ups.

Make-ups are typically granted for: jury duty, military service, religious holidays, university-sponsored events, professional development, as well as important social or family functions. As nearly all such absences are, or should be, known in advance, **you must arrange the make-up with the supervisor at least one week prior to the absence.** Failure to do so for any reason will result in the make-up being denied or a significant penalty will be applied. We also may provide a make-up for illnesses and other emergencies. Arrangements for multiple absences due to an extended illness or family hardship should be discussed with the lab supervisor as soon as possible. In all cases, documentation may be requested.

Missing lab because your alarm clock failed, the bus was full, you forgot your lab manual, you were studying for a test, or you had a test or make-up in another course, are not considered valid reasons for an absence. Not limited to the above examples, any unexcused absence

will result in the make-up being denied or, if provided, a penalty will be applied.

There are two ways we provide make-ups. An *in-schedule make-up* is one performed in another section during the week that the missed experiment runs in the schedule. If an in-schedule make-up cannot be arranged, the supervisor may offer an *off-schedule make-up*. These are typically performed without a partner on the last one or two days of the semester. (See the lab schedule page for dates.)

For obvious reasons, in-schedule make-ups are preferred whenever possible. To help make one possible, prompt scheduling is important. Depending on the nature of absence, the following communications methods can be used to request a make-up.

In person: This is the preferred method in all cases, but particularly for absences known in advance. See the supervisor in person to discuss the absence and arrange a make-up time.

By phone: Good for emergency absences, but leave a call back number if you can only leave a message.

By email: Email is typically too slow for arranging an in-schedule make-up and is really only useful for informing us of a sudden emergency or illness that will keep you away from class for a week or more.

Emails and phone messages can get lost or go unchecked for a day or more. If you get a quick response, heed it. If not, see the supervisor in person. If the supervisor is out, see the director. But in all cases, **it is always your responsibility to make sure the make-up gets scheduled in a timely fashion.** Making an unsuccessful attempt to speak with the supervisor does not obviate this responsibility.

For an emergency or unexcused absence, showing up in person right away and prepared to do an in-schedule make-up will improve your chances of getting one. **You must never wait until the following week's lab session to inform us of an absence.** We may be able to provide an in-schedule make-up if notified in time. Waiting until the following week is irresponsible and will result in the make-up being denied or, if provided, a penalty will be applied.

Help Sessions

Room 1215 is reserved for Help Sessions where you can practice the lab and receive guidance from a lab instructor. If you choose, you can complete the entire experiment while at the Help Session. However, you cannot use data or other work from the Help Session (or anywhere else) in the lab work submitted for grading. You can use notes as long as they have been shown to and approved by your instructor.

Prelabs

A graded prelab assessment is due prior to every lab except the First Day Activity lab. The prelab consists of questions taken from material prior to the Procedure section of the lab writeup and any related textbook material. Prelab questions can be quantitative or qualitative. Each prelab is worth five points.

In the past, prelab assessments were handwritten assignments turned in at the beginning of the lab. Now, the prelabs are found on the Canvas e-Learning website. The printed versions of the prelabs are still found in the lab manual, but they will not be accepted as a substitute for the online prelabs. They can be used for practice.

There are many types of prelab questions. There are true/false, matching, multiple choice and calculated questions. For calculated questions, the units for the answer will always be given in the question. Never enter units with your answer; only enter the numerical value. For answers where scientific notation is needed, use the standard exponential notation typical of calculators and spreadsheets, e.g., 2.3E5 (be sure there are no spaces around the E) for 2.3×10^5 .

Accessing prelabs

The Canvas e-Learning login page is found at elearning.ufl.edu (no www at the beginning). You can also reach it from a link on the physics lab homepage. You will need your Gatorlink user name and password to log into e-Learning. (For assistance with Gatorlink see www.gatorlink.ufl.edu.)

Explore your Canvas homepage to find your lab section web site and navigate to the *Quizzes* section to find the prelabs which are named XX-Prelab, where XX is the two-letter code for the appropriate experiment as given in the lab manual. During the first or second week of labs, please also attempt the *Prelab Warmup* and the *Makeup Quiz*. The *Prelab Warmup* is an introduction to the prelabs and provides a rudimentary check of your internet browser. The *Makeup Quiz* covers some basics of the policy for make-up labs. Even though their grades don't count, you should attempt both quizzes until you achieve a perfect score.

Prelab deadline

Prelab assessments are **due by 7 am** the day of your scheduled lab. Even if your lab is in the afternoon or evening, the deadline is 7 am. You should not wait until the last minute to attempt your prelab. While Canvas is fairly

robust, it does not work all the time. Your internet connection can fail and computers can crash. If you wait until the last minute, these problems will be catastrophic. If you attempt your prelab in a timely fashion, these issues can be resolved easily. **The deadline for a prelab assignment will not be extended.**

Prelab attempts and duration

You will have **one attempt** at the prelab assessment. Be sure that you submit the prelab for grading before exiting. A second attempt will not be given if the answers are not submitted properly.

You will have **two hours to complete** the prelab starting from the time it is first accessed. The two-hour limit is not extended by leaving the prelab without submitting it or by logging off the Canvas site.

Seating

Each week you will have a different seat and partner as given by the **seating chart** on the bulletin board just inside the lab room. As you enter the lab each week, use the chart to find your seat based on the current week number (1-12) and the seating number (1-18) that you were given at the beginning of the semester. The seating chart * also specifies who will sit on the computer side of the table. If there are two people without partners, they can be paired together.

Behavior

We expect students to behave properly in lab. No food is allowed and only drinks in closed containers are allowed. Loud or disruptive students will be removed from class and will receive an undroppable zero for the lab.

Sheets for data and comprehension questions must be blank when you enter the lab. **Only the lab manual and a calculator** can be out on the lab table. Any notes you have prepared can also be visible as long as they have been shown to and approved by your instructor. No phones, tablets, or laptops are allowed to be out, even if they are to be used as a calculator. These and other items, such as backpacks and books, must be placed on the floor. It is recommended that you remove from the manual those sheets for the data and comprehension questions that will be turned in; leave the other pages in the manual and check off your work as you go along.

The Lab

The work you submit must be your own. Except for raw data, do not copy your partner's work. If anything besides data is copied between partners, points will be deducted from both papers. (See Academic Honesty below.)

Lab reports are due at the end of class. Late submissions will not be accepted. Additions to incomplete submissions will not be accepted. Extended time to complete the lab is not allowed. Accommodations can be made for students with disabilities by first registering with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/). Proper paperwork must be submitted to Mr. Parks and accommodations must be agreed to in advance.

The report must be neat and legible. It contains the following:

The Title Sheet, found on the reverse side of the data sheet, must include the title of the experiment and any information requested by your instructor. Comments to your instructor can be placed at the bottom of this page.

The Data Sheet must be complete, clearly labeled, include units, and have the correct number of significant figures. For data tables, labels and units should appear at the top of the column.

Spreadsheet output and calculations

should show which formulas were used, should be performed correctly, and should include the units associated with any variables. Where appropriate, cancel units or change them to derived units (e.g., change $\text{kg} \cdot \text{m}/\text{s}^2$ to N). Show all work but with many similar calculations, you need only show work for the first one.

Graphs are typically created on the spreadsheet analysis page and must have a title and the axes labeled with units. If a linear regression is performed, include the fitted line and its equation on the graph.

Comprehension Questions probe your understanding of the theory, experiment and analysis. Answer in complete sentences that demonstrate your mastery of the apparatus, the measurements and the relationships between the data and predictions.

Leaving

Even if you are not finished with lab, you must turn in your work at the end of the class. Labs are due at the end of the period and you must leave so that the next class can enter. Failure to leave at the end of class will result in points being deducted from your lab. Before you leave, return the equipment to an orderly condition and close any computer programs that are running. The computers can be left on.

Academic Honesty

The academic honesty pledge: *We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.*

Our University benefits when it is clear to all that copying another student's work will not be tolerated. You are encouraged to interact with each other during labs. Always remember that the prelab assessments and all parts of the lab report must be your own work and not be copied from someone else. Specific infractions and penalties are

- Having an old report in your possession: The deduction is 1/2 a full report score.
- Copying from your laboratory partner: Both partners will get a deduction of 1/2 a full report score.
- Using an old report: A report score of 0 will be given.

All penalties are undroppable. Any second violation will result in a grade of E for the course and notification will be sent to the Office of Student Affairs.

Grading Policy

The lowest report score will be dropped from consideration in determining your final course grade. This report score can be a zero due to an absence that is not made up. Additional absences that are not made up will count as a zero for the report. All prelabs will count.

While there is always a degree of subjectivity in assigning letter grades, the following grade descriptions are appropriate:

A: Consistently demonstrates understanding of the physics under consideration. Shows

up on time and well prepared. Works well with the instructor and partners. Excellent experimental technique and written reports.

- B:** Good to very good work. Occasional mistakes but very few omissions in the lab and reports.
- C:** Good effort with acceptable preparation and understanding. Written reports often have less-serious mistakes and an occasional serious error or omission.
- D:** Shows minimal effort, preparation, or understanding, consistently makes serious mistakes, several omissions.
- E:** Four (or more) missed experiments. Little effort or preparation. Often unacceptable reports.

Experience has shown that different instructors have different ideas about what constitutes an A (or any letter grade) in a course. In the physics laboratories where many different instructors may be teaching the same course material, typical variations might range from a A– average for an “easy” instructor to a C+ average for a “tough” instructor. To promote fairness and uniformity among the grades given by different instructors, each instructor is asked to give an average grade (not including E grades) in the range 3.20 to 3.40, where A = 4, A– = 3.67, B+ = 3.33, etc. The average is over all sections; one section could have a higher average than another. Therefore, different instructors will likely have different cutoffs. For example, an easy instructor may set the cutoff for an A– at 90% whereas a tough instructor may set it at 85% with both having the same distribution of letter grades.

Upon returning graded material, the instructor should also provide the average and

the spread in these scores. This information is provided to help you evaluate your standing and so you can note whether there is any spread in the grading. With insufficient spread in the grades, an instructor may need to give out more Bs and less As and Cs. If you are concerned that this might apply to your instructor, or if your instructor is not providing sufficient grading information, please inform Mr. Parks as early in the semester as possible. Grades will be posted on the e-Learning course page at the end of the term and near the midterm so that you can assess your situation.

Grade disputes should be taken up with your instructor. Typically, supervisory personnel do not get involved with disputed grades.

Finally

Any situation not specifically covered by the *Guidelines* will be decided by the lab instructor and supervisory personnel.

Good luck and have fun with your adventures in physics lab.