

Student Guidelines

General Information

My instructor:

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

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

Supervisor (contact person for make-ups):

Charles Parks

Room 1227A NPB

Phone: 392-0516

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Director:

Robert DeSerio

Room 1236 NPB

Phone: 392-1690

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Welcome

Physics is an experimental science. When several physical theories compete for acceptance, the decision 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 the supervisor or director. Near the end of the semester students can provide feedback on the quality of the instruction by completing online evaluations as announced on Canvas.

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. Instead, 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.

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. None of the labs are dropped. It is the student's responsibility to take care of absences by emailing 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 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 significant penalty will be applied.

There are two ways we provide make-ups. An **in-schedule make-up** is performed in another section during the same lab week of the missed experiment. If an in-schedule make-up cannot be arranged, the supervisor may offer an **off-schedule make-up** which are offered near the middle of the semester and at the end of the semester. (See the lab schedule page for dates.)

In-schedule make-ups are preferred whenever possible. Because equipment for an experiment is only available for the week that the experiment runs, prompt scheduling is critical. Depending on the nature of your absence, the following communications methods can be used to request a make-up.

By email: Email is the preferred method for arranging any make-up but especially for an in-schedule make-up. Address your email to the lab supervisor. His email address is on the first page of this document.

In person: If you are in the Physics Building, visit the lab supervisor's office to schedule a make-up.

If you get a quick response, heed it. If not, see the supervisor in person. However, 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 contact 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. All lab sessions start on the odd periods. **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 significant 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. You cannot use any

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 lab instructor.

Prelabs

A graded prelab assessment is due prior to every lab except the First Day Activity. 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: true/false, matching, multiple choice and calculated questions. For calculated questions, the units for the answer will always be given in the question. If your calculation gives an answer or 3.61 m, the question will read, "What is the distance (in m)?" You would enter 3.61 without the units. Never enter units with your answer; only enter the numerical value. The *Prelab Warmup* has additional instructions concerning scientific notation.

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 *Modules* section to find the Preliminaries Module. Before you can access the prelab quizzes, you must first get a perfect score on both the *Prelab Warmup Quiz* and the *Make-up Policy Quiz*. After you complete the Preliminaries Module, you will have access to the prelabs in either the Physics 1 Prelabs Module or the Physics 2 Prelabs Module. The prelabs are named XX-Prelab, where XX is the two-letter code for the appropriate experiment as given in the lab manual.

The *Prelab Warmup* is an introduction to the prelabs and the *Makeup Quiz* covers some basics of our makeup policy. Neither counts toward your final grade and you can take as many tries as necessary to achieve a perfect score, but you should attempt them well in advance of the due date for the first prelab quiz.

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 robust, it does not work all the time. Also, 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.

Any prelab submitted after the deadline will have a 1 point deduction for each day that it is late. A score of 0 is the lowest possible score on a prelab. **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.

Health and Safety

We will adhere to all University of Florida health and safety guidance and protocols. Information on COVID-related issues can be found at the <https://coronavirus.ufl.edu/> web 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 lab number (1-11) 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. No one works alone. If there are an odd number of students, groups of three are allowed.

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 a 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. (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, <https://disability.ufl.edu>). Proper paperwork must be submitted to Mr. Parks and accommodations must be agreed to in advance.

The lab 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 cor-

rect 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. 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. Having an old report in your possession will result in a deduction of 1/2 a full report score. Using an old report will result in a report score of zero. 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

Normally, graded lab reports will be returned to students the week after the experiment is performed and should show mistakes and areas where improvement is needed. However, deductions for individual mistakes will not be provided. Reports and the associated performance in the lab will earn a maximum score of 20 points for demonstrating a complete understanding of the experiment with proper data acquisition and analysis and thoughtful answers to comprehension questions. A report with a few mistakes on these tasks will earn a score of 19 points and a report with many such mistakes will earn a score of 17 or 18 points. Thus, putting in a good effort on the lab material for the entire lab period will earn a score no lower than 17 points.

Showing a lack of effort, a score of 0-16 points will be earned if:

- you leave early (or for an extended time during the session) while significant aspects of the lab work are not attempted.
- the submission is illegible.

- answers to comprehension questions are not thoughtful.
- repeated warnings given in class or on graded reports, such as missing units of measure, go uncorrected.

The instructor will take into account various problems that prevent the student from completing all aspects of an experiment. However, if enough work is performed (as determined by the instructor), scores will be based on the work submitted.

Instructors who consistently grade with a report average lower than the average of other instructors will be asked to add correction points in an equal amount for all students in order to bring their letter grade average roughly equal to that of other instructors. The correction points will only be added when determining letter grades and will not be applied individually to each report.

With nine graded lab reports giving a maximum of 180 points and with a maximum 45 points for the nine prelab quizzes, the maximum score is 225 points. **No report scores are dropped.** The grading table shows the cutoff points needed for each letter grade. **Only your total points determine your grade** and thus it is to your advantage to attend all lab sessions.

grade	cutoff
A	198
A-	189
B+	181
B	172
B-	163
C+	157
C	148
C-	144
D+	140
D	135
D-	131

Ignore all percentage scores on Canvas. Only your total points and the grading table above will determine your final grade.

Students should **retain their graded labs** until the end of the semester. Attendance in a lab is proven by the graded lab report. Grade disputes should be taken up with your instructor in a timely manner.

Students should attend every laboratory. Students should not seek advice from their instructor or lab supervisors whether an absence will affect their final grade.

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.