

**MINIMUM REQUIREMENTS:**

**You must complete at least 7 experiments. Failure to do so will result in a grade of ZERO for the lab. (Since we take the best 8 out of 9 worksheet grades—see #9 on page 3—if you only complete 7 experiments, one of your worksheet grades will be a zero.)**

**Laboratory Manual:**

*Experiments for an Introductory Physics Course* 2014 Edition, 2016 Edition or 2017 Edition  
UGA Dept. of Physics and Astronomy (Hayden-McNeil Publishing).

If you are retaking the course within a five-year period, and you are happy with the final lab grade you received previously, you may use that lab grade again and you do not have to attend the lab. You do have to remain registered for the lab, but you do not have to attend. Please notify the Lab Coordinator (see contact information below) as soon as possible if you want to exercise this option. (Please do so **BEFORE THE END OF THE DROP/ADD PERIOD** so that your seat may be made available to another student.) If you would like to improve your grade, or are taking the course again after five years, you must do **ALL** of the required lab exercises again and take the lab exam.

**Physics 1112L /1212L/1312L Lab Syllabus****Fall 2017****Room 319—Physics**

<b>Week</b>	<b>Date</b>	<b>Experiment</b>	<b>Exercise #</b>
1	<b>Aug. 14 - 18</b>	<b>NO LAB</b>	
2	Aug. 21 - 25	First Diagnostic Test /Reflection and Refraction	15
3	Aug. 28 – Sept. 1	Image Formation by Lenses	16
4	Sept. 4 – Sept. 8	<b>NO LAB</b>	
5	Sept. 11 - 15	Interference and Diffraction 1	17
6	Sept. 18 - 22	Interference and Diffraction 2	17
7	Sept. 25 – 29	Diffraction Grating Spectrometer	18
8	Oct. 2 - 6	Electric Fields and Equipotential Lines	12
9	Oct. 9 - 13	Ohm's Law 1	13
10	Oct. 16 - 20	Ohm's Law 2	13
11	Oct. 23 - 27	<b>NO LAB—Fall Break on Friday</b>	
12	Oct. 30 – Nov. 3	Magnetic Field Measurements	14
13	Nov. 6 - 10	<i>Make-up Lab</i>	
14	<b>Nov. 13 - 17</b>	<b><i>Lab Exams—Attend at your regular day and time.</i></b>	
15	Nov. 20 - 24	<b>NO LAB—Thanksgiving Break</b>	
16	Nov. 27 – Dec. 1	Second Diagnostic Test/Lab Exam Review	
17	Dec. 4 - 8		

**You may never attend a lab section other than the one for which you registered unless you have permission from the Laboratory Coordinator (contact information below). Your TA cannot authorize this.**

**Laboratory Coordinator:** Tom Barnello Room 310 Physics, 706-542-2903, [tjbar@physast.uga.edu](mailto:tjbar@physast.uga.edu)  
(Please include which course you are taking and the day and time of your lab in your correspondence.)

We welcome any comments or suggestions on the lab course evaluation for improving the laboratory course. Thank you.

**Please note: The rules below and on the next pages supersede anything your Teaching Assistant (TA) tells you to the contrary.** If that happens, please bring it to the attention of your TA, or ask the Laboratory Coordinator for clarification.

1. **Preparation:** You must read through the experiment and also relevant material in the textbook **before** attending the lab. The more prepared you are the better, especially in those cases where the lab gets ahead of the lecture.
2. The only things you need to bring to the lab are your lab manual, a calculator, and a pen or pencil. **If you bring a completed worksheet from another student into the lab, or even a worksheet of your own from a previous semester, you will receive a zero for that experiment and that zero will count in your final average.** (Please put your name on your calculator in case it gets lost.)
3. **Sign In:** You **must** sign in when you enter the lab. A sign-in sheet will be located on the lab bench at the front of the room. ***Not signing in may result in a grade penalty for that experiment.***
4. **Late Policy:** At the start of the lab the TA will outline important procedures and safety guidelines. ***Please do not be late!*** The labs will start promptly at the scheduled time. **Approximately 10** minutes after that, the door to the lab room will be locked and a sign will be posted on the door, which says, “You have arrived too late to do the experiment.” If the door is locked and/or that sign is posted, you have missed the lab and will receive a zero for that experiment. ***PLEASE NOTE: The late policy is intended for an occasional late arrival. It does not mean you can show up ten minutes late to every lab. If the TA sees that you are abusing the late policy, he or she may deny you entry.***
5. After the introductory lecture, you will perform the experiment. You will usually perform the experiment with a lab partner, but **you must answer all questions on the worksheet IN YOUR OWN WORDS.** ***Not doing so will result in a grade penalty.***
6. **Clean Up and Check Out:** When you have completed the experiment, please clean up your station! Remove all trash and follow the guidelines given by your TA or written on the front board for dismantling the equipment to make it ready for the next class. After you have cleaned up, call the TA over to check you out. Write your name **and your lab partner’s name** at the top of the worksheet and give it to the TA. If you have handed in a worksheet and cleaned up your station properly, the TA will put a check next to your name on the sign-in sheet. ***Do not leave the lab room before your TA has checked-off your name on the sign-in sheet. Leaving the lab without checking out will result in a grade penalty.***
7. At the next lab meeting the TA will hand back the graded worksheet from the previous experiment. **This is the time to ask the TA to correct any mistakes he or she has made in grading—NOT at the end of the semester when you realize that you need a few more points to raise your grade level.** All such requests at the end of the semester will be denied.
8. **Please keep all graded worksheets on file.** In the event that a grade is not recorded properly, you may be asked to bring in the graded report as proof that you completed the lab.

9. **Laboratory Grade:** Your lab grade will be a combination of:
- a.) Worksheet Grade: The average of the best 8 out of 9 grades you receive on your lab worksheets = 70% of the lab grade. (If you have only completed the minimum number of 7 experiments, then one worksheet grade will be a zero. **If you have completed less than 7 experiments, your entire lab grade will be a zero, not just your Worksheet grade.**)
  - b.) Lab Exam Grade = 30% of the lab grade.
  - c. Grade Web Site—you may view your grades online at any time by going to

<https://www.physast.uga.edu/student>

**Note: Please check your online grades on a regular basis. Every once in a while a TA may make a mistake in entering a grade. If you find an error, please tell your TA as soon as possible.**

10. **Withdrawals:** All withdrawals are done online through Athena. The lecture and lab are linked together as a 4-credit course. This means that you cannot withdraw from one without withdrawing from the other. **If you withdraw, you can no longer attend the lab and you will have to repeat ALL of the experiments again if you retake the course, no matter how many you have completed at the time of your withdrawal.**
11. **Missing an experiment:** Keep in mind that there are many lab sections and that, on average, 2 students miss lab in each section. That means many students are absent each week we have lab which is why **you cannot simply attend another lab section later in the week if you miss a lab** (for the exception to that rule see section b. below) and why we operate under the rules given below. ***Please read these sections carefully—then read them again!***

There are all sorts of reasons you might have for missing an experiment. Some reasons may be considered “*legitimate*” excuses and some may not. What may seem like a *legitimate* excuse to you may not be considered one by us. What constitutes a *legitimate* excuse will be at the discretion of the Laboratory Coordinator, but includes such things as illness requiring a visit to the doctor; university-related travel; course-related events, etc.

Missing an experiment because your car broke down, the bus ran late, the power went out and your alarm did not wake you, you had to study for a test, you were ill but did not see a doctor or go to the Health Center, etc., **are NOT considered legitimate excuses.**

**If you miss an experiment with a legitimate excuse, ALWAYS get documentation to prove it**—a note on official letterhead, signed by an appropriate authority: doctor, professor, etc. Even missing an experiment to attend a “family-related event,” must be proven by some form of documentation: a wedding invitation, funeral notice, etc. (Most funeral homes will provide this documentation.) You may have to provide that documentation to the Lab Coordinator in the event that you miss more than two experiments (see section b. below). If you know in advance that you are going to miss a lab, but you are not sure if the reason will be considered a legitimate excuse, please contact the Laboratory Coordinator. ***All documentation for legitimate excuses should be given to the Laboratory Coordinator—NOT your TA.***

***CAUTION: You must be very careful about missing experiments without legitimate excuses.*** (See sections a-c below.) In other words, leave open the option of missing an experiment for “life’s unforeseen circumstances.”

a.) Missing One Experiment: If you miss one experiment you do not have to make it up since we only take the best 8 of 9 worksheet grades. If you want to make it up, however, you may, just attend at your regular day and time during the make-up lab date shown on the schedule.

b.) Missing Two Experiments: If you miss two experiments, you **must** make up one of them or you will receive a zero for one worksheet grade. Attend at your regular day and time during the make-up lab date shown on the schedule.

c.) Missing Three (or more) Experiments: **Only ONE of the misses can be without a legitimate excuse.** If two of the misses are without legitimate excuses, no matter in which order they occur, you can only do one make-up lab and you will get a zero for the third miss and any additional missed labs. **(and if you only complete 6 experiments your lab grade will be zero.)**

If you miss a third experiment and you have legitimate excuses for two of those misses, **contact the Lab Coordinator immediately.** You may be able to attend a different lab section while that experiment is being performed to complete the experiment, or you may be able to do an additional make-up lab during the scheduled make-up lab week.

## 12. Lab Exam

a.) **The lab exams are given in the lab during the week shown on the schedule. THEY ARE NOT GIVEN DURING THE WEEK OF FINAL EXAMS.**

b.) **Missing the Lab Exam:** If you miss the lab exam **contact the Lab Coordinator IMMEDIATELY—the same day if possible!** The Lab Coordinator will decide if you will be allowed to do a make-up exam possibly in another lab section during the dates of the lab exam. **If you miss the lab exam without a legitimate excuse, you may still be able to do a make-up exam, but you will be penalized.**