**MINIMUM REQUIREMENTS:**
You must complete at least 7 experiments. Failure to do so will result in a grade of ZERO for the lab course. (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:**

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.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Experiment</th>
<th>Exercise #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug. 13 - 17</td>
<td>NO LAB</td>
<td></td>
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<tr>
<td>2</td>
<td>Aug. 20 - 24</td>
<td>Reflection and Refraction</td>
<td>15</td>
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<tr>
<td>3</td>
<td>Aug. 27 - 31</td>
<td>Image Formation by Lenses</td>
<td>16</td>
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<tr>
<td>4</td>
<td>Sept. 3 - 7</td>
<td>NO LAB</td>
<td></td>
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<tr>
<td>5</td>
<td>Sept. 10 - 14</td>
<td>Interference and Diffraction 1</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>Sept. 17 - 21</td>
<td>Interference and Diffraction 2</td>
<td>17</td>
</tr>
<tr>
<td>7</td>
<td>Sept. 24 - 28</td>
<td>Diffraction Grating Spectrometer</td>
<td>18</td>
</tr>
<tr>
<td>8</td>
<td>Oct. 1 - 5</td>
<td>NO LAB</td>
<td></td>
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<tr>
<td>9</td>
<td>Oct. 8 - 12</td>
<td>Electric Fields Mandatory (see #8 below)</td>
<td>12</td>
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<tr>
<td>10</td>
<td>Oct. 15 - 19</td>
<td>Ohm’s Law 1</td>
<td>13</td>
</tr>
<tr>
<td>11</td>
<td>Oct. 22 – 26</td>
<td>Ohm’s Law 2</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>Oct. 29 - Nov. 2</td>
<td>Magnetic Field Measurements</td>
<td>14</td>
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<tr>
<td>13</td>
<td>Nov. 5 - 9</td>
<td>Make-up Lab</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Nov. 12 - 16</td>
<td>Lab Exams—Attend at your regular day and time.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Nov. 19 - 23</td>
<td>NO LAB</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Nov. 26 - 30</td>
<td>Attend your regular lab to look at exam and get final grade.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Dec. 3 - 7</td>
<td></td>
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</tbody>
</table>

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
(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. Room 310 is the Lost and Found repository for the Physics building.)

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.

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. **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.

8. **Special Case—Electric Fields and Equipotential Lines Experiment (Exercise #12):** Everyone must do this experiment and the grade will count, even if it is your lowest grade. **If you miss this experiment, even if it is the only experiment you miss, you MUST make it up.**
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 Oasis. 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:** There are all sorts of reasons that 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; 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 (c) 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.

   **CAUTION:** If you miss two experiments without legitimate excuses you can only do one make-up lab.

   a.) **Missing One Experiment:** If you miss one experiment—as long as it is not Exercise #12 (see #8 above)—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 show 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. If one of them is Exercise #12, then you must make up that one since it is a mandatory experiment. Attend at your regular day and time during the make-up lab date show on the schedule.
c.) Missing Three (or more) Experiments: You can do additional make-up labs IF ONLY ONE OF YOUR MISSES IS WITHOUT A LEGITIMATE EXCUSE. If you miss two experiments without legitimate excuses then you can only do one make-up lab. You will have to make arrangements with the Lab Coordinator to attend a different lab section during the make-up lab dates to do the additional make-up lab.

12. 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 final. 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.