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Ensure you Register at [www.wileyplus.com](http://www.wileyplus.com) as soon as possible. **There is homework due Friday 01:00am.**

Grading: Your course grade will be calculated using the following percentages:

<table>
<thead>
<tr>
<th>Component</th>
<th>6 week Grade</th>
<th>12 week Grade</th>
<th>Final Grade</th>
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<tbody>
<tr>
<td>Homework (Wiley-Plus)</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
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<tr>
<td>Homework (Paper)</td>
<td>7%</td>
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<tr>
<td>Homework Notebook</td>
<td>3%</td>
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<tr>
<td>Laboratories</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
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<tr>
<td>Quizzes</td>
<td>26%</td>
<td>13%</td>
<td>7%</td>
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<tr>
<td><strong>Short Literature Exercise</strong></td>
<td>☒ ☒ ☒ ☒ ☒ ☒</td>
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<tr>
<td>Exam I</td>
<td>55%</td>
<td>17%</td>
<td>8%</td>
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<tr>
<td>Exam II</td>
<td>☒ ☒ ☒ ☒ ☒ ☒ ☒</td>
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<td>Exam III</td>
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<td>Exam IV</td>
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<tr>
<td>Final Exam</td>
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<td>☒ ☒ ☒ ☒ ☒ ☒</td>
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<td>Total %</td>
<td>100%</td>
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Letter grades are defined as normal, except lowest D: A > 90%, B > 80%, C > 70%, **D > 62.5%**

I reserve the right to adjust these guidelines by as much as 5% based on my judgment of your **effort** in this course.

The exams will include a mostly multiple choice take-home exam made by me (but you will submit and be graded on all your work!), plus an approximately 10 question free-response in-class portion too. The Final exam is a common three hour 50 question multiple choice exam prepared by department committee, just like Physics I.

**Any student who fails the final exam will receive a grade of “F” for their final course grade.**

Do not assume your current grade exempts you from applying yourself to any exam. Naval Officers always do their best; there is never an excuse for lack of effort.
Classroom etiquette:
• Drinks are permitted, **food is not. [This is the Dean’s Rule, so ensure you follow it!]**
• If you need to use the head, do so without interrupting class; no need to ask permission.
• **No sleeping. If you are tired, feel free to stand in the back of the classroom.**
• **No Electronics (cell phones, laptops, iPod, etc.) used by students during lecture.**

Required Materials: You should have the following materials as of the second class session: One 3 ring notebook for handouts/notes, one notebook for homework (up to you which style), colored pencils, highlighter, and a calculator. The colored pencils will help when drawing drawings or FBDs with many different components. **You SHALL bring your book, 3 ring notebook, homework notebook, and calculator each day of class! Lab days you must bring your laptop to lab also!**

Reading assignments: Read over the material that is going to be covered in class before the appropriate lecture. Looking at the syllabus and seeing where we left off from last class will clue you in on what to review before class. You are responsible for all reading assignments, **even if not covered in lecture.**

Homework: **Homework is mandatory!** It is due 01:00 as listed on the schedule; (I will only be available until 22:00 via email most nights so start early); 50% reduction if late. You must demonstrate proficiency in technical subjects by applying your knowledge to solving problems. **To support development of this skill, you will regularly submit homework via the Wiley-Plus Web Site and on paper.** Failure to turn in all assignments can result in my invoking discretion to lower your final grade based on lack of effort in addition to Extra Military Instruction.

The point of homework is not achieving a correct or incorrect answer. You should strive to refine your problem solving and reasoning skills. Physics is more about why answers are right than the right answers themselves.

Keep a homework notebook and discipline yourself to use the following problem solving method. I will collect and grade homework notebooks a few times during the semester. The numbers in parenthesis represent the approximate grading weight for each step of the method and should give you a guide for how much time to spend performing that step.

1. Read the problem. Reread it if necessary. (5%)  
2. Write down the information that is “given.” (5%)  
3. Write down what is to be “found.” (5%)  
4. Draw a picture or sketch. (15%)  
5. Write down the fundamental physical relationship necessary to solve your problem. (40%)  
6. Perform the mathematics (algebra, trig, calculus). Remember the rules for significant digits. (20%)  
7. Simultaneously, perform unit analysis. (10%)  
8. Box your final answer. **Include units.** (5%)  
9. **Check** that your answer makes sense.

From time to time, with no previous warning, other than these Standing Orders, you will be called on to present, both to the class and to me, your version(s) of how to work a particular problem that has been assigned. In this context, you may use your homework notebook in your presentation.

It is necessary that you learn to solve problems independently. Copied solutions from web sites are of little value and are often dishonorably submitted as one’s own work. While solving problems in groups has definite advantages, remember that you will need to solve problems independently during exams and quizzes. An understanding of Physics is required to solve a problem with nothing other than a blank sheet of paper, your calculator, and your own brain. **If you continuously rely on others to think for you, you will not succeed in this course or your Navy career.**

- Students are forbidden to use or possess any instructor's solutions manual, in any form, for any textbook for which David Halliday, Robert Resnick, or Jearl Walker is an author.
Laboratory Work: The laboratory manual is available online at the course web page.

Lab Groups are assigned by the instructor. The group will be assigned a common grade for the lab. However, as in the NAVY, not doing your fair share of the work will not be tolerated and dealt with accordingly. Only one report from each group is required or desired.

Each laboratory session has a “prelab” exercise associated with it. You are each required to complete this individually before lab.

You will submit results of the lab before you leave the lab. NO LAB REPORT OUTSIDE THE LAB is required.

Exams and Quizzes: Expect short quizzes almost daily. Quizzes can be upgraded to a max of X%*(100-X%)+X% (calculation done in decimals) by coming to my office and upgrading your mistakes by taking a similar quiz or demonstrating to me that you understand the material (the choice of method is up to instructor).

Four exams will be given during the semester (not including a take home portion). Exam problems will look like homework and quiz problems. Show all the work necessary to justify your answer (including unit analysis) or you will not receive full credit.

The Take-home exams and the final exam will be multiple choices and you should strive to not use your equation sheet. Equation sheets are good to help ensure you remember the equation correctly…i.e. is slope Delta Y over Delta X or vice versa….but if you use it as a crutch, then you will not truly understand when to use each equation and you will waste time hunting for an equation on the sheet and probably choose the wrong one.

Short Literature Exercise (topic approved NLT 2/26/16; paper due 3/11/16): The written assignment has three objectives:

1. to develop skills for technical and scientific communication,
2. to increase exposure to the scientific literature and
3. to allow you to see application of the course material in areas of individual interest.

The main objective is to find an article of interest in any scientific publication. If you find an article outside a scientific publication that you feel meets the intent, bring it by my Office and we will discuss whether you will be allowed to use that article instead.

Your submission should meet the following criteria

1. 4-5 pages (double spaced, Times New Roman 12 pt font) in length (absolute maximum is 5 pages.)
2. Article from a scientific publication, not earlier than the year 1995 (Average birth year of Class ’18.)
3. Falls in the general area (broadly defined) of the course material – see me if you have an interest and you are not sure whether it falls in the scope of the course material. All Topics must be approved by me!

Professionalism: Nearly all of you are used to academic success. Some of you may have earned the very first C or D of your life here at the Naval Academy, but you all earned excellent grades in high school. You will find that no matter how well (or poorly) you do at the Naval Academy, you will encounter failure much more often as a junior officer than you did here. All junior officers make mistakes; senior officers know this. As a result, you will often be judged by your resilience in the face of failure and your ability to avoid the same mistake twice. I will judge you by the same standard in this class.

Absences:

• Excused Absences
  1. Lab: For planned absences or movement orders, make arrangements to perform the lab with another section. Keep me informed of your plans.
  2. Test Days: Inform me ahead of time, and we will arrange a mutually convenient time for you to take the test.

• Unexcused Absences: If you have an unexcused absence on a lab or test day, you will not be permitted to make up the work, and you will receive a zero for the test or the lab.
**Getting Help:** Standard EI Times outside of normal working hours: **Wednesday evenings 19:00-21:00, and Sunday evenings 19:00-21:00.** Best to make an appointment if outside these times, but I will try to accommodate drop in’s as best I can. I expect you to have looked at the homework/labwork/quiz/exam and have some specific questions. Email can be very useful if you are working on homework or studying after normal working hours (I am available most nights until 22:00). Put the course number (SP212) in the subject line to help me notice it and answer your question as promptly as possible. Phone calls are considered LAST resort for contacting me, but are acceptable up to 21:00 at night. **Please do not text as they are not free.**

//Hard Copy Signature on File  
T. J. Shivok  
LCDR, USN

**Learning Outcomes for General Physics II (SP212) - Electricity and Magnetism:** Upon completion of this course, you should be able to:

A. **Learning Outcome 1:** Remember and recall statements of the definitions, concepts, and laws that govern classical electricity, magnetism and light.

B. **Learning Outcome 2:** Describe the concepts and laws that govern classical electricity, magnetism, and light.

C. **Learning Outcome 3:** Apply the concepts and laws of classical electricity, magnetism, and light to solve both qualitative and quantitative single-step problems.

D. **Learning Outcome 4:** Analyze quantitative and qualitative problems involving two or more concepts and laws of electricity, magnetism and light.

E. **Learning Outcome 5:** Combine concepts and laws to solve such problems.

F. **Learning Outcome 6:** Evaluate how well the concepts and laws of electricity, magnetism, and light fit observations of physical phenomena.