Physics 202 Spring 2013
General Course Information
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Math prerequisite: first-semester calculus (221 or equivalent), algebra and trigonometry.

Materials:
- Text: Physics for Scientists & Engineers, 8th Edition by Serway and Jewitt (CH 23–38)
- Course website: http://www.physics.wisc.edu/undergrads/courses/spring2013/202/
- Homework website: webassign.net – homework, tutorials, etc.
- Lab Notebook: spiral or hard-bound graph-paper notebook (no loose sheets!!)
- Basic scientific calculator with trig, exponential and logarithmic functions

Lectures: 8:50 and 9:55 TR in 2103 Chamberlin Hall

Read the chapter before the lecture! I don't think about physics exactly the same way that Serway and Jewitt do, and it benefits you to see their take on things before you see my take on them. Hopefully you'll come to lecture with some questions in mind! Asking questions in lecture is GOOD.

Lecture attendance is critical. I write exams off of my lecture notes and stuff I say in lecture, with some input from homework, and I emphasize things differently from the book. I scan and upload my notes to the course website after lecture. You really, really need to attend lecture.

Labs: 3314 Chamberlin Hall (301-310) and 3310 Chamberlin Hall (321-330)

The purpose of the labs is to give you some exposure to experimental physics in a controlled setting, and to give you some skills writing down observations in an organized manner. The lab topic may precede coverage of the topic in lecture. That's fine, because in the real world, we don't get a lecture before we carry out an experiment. It's good to see stuff happen without knowing 'why' – that's a huge part of physics. There is no 'success' or 'failure' in lab – it's all about recording your observations, comparing with the physics you know, and being an objective scientist. Half of a TA's students will receive a BC or below for their lab grade. That means that you need to do an excellent job of data entry, analysis, and, optimally, create your own experiments to get a B or better in lab. Creativity is highly regarded.

Half of a TA's students will receive a BC or below for their lab grade.

Read the introductory text in the lab manual (pages 5-15) before your first lab if you didn't take 201. Leave your lab notebook with your TA at the end of each lab for grading. There is no lab-related work outside of the lab period. The lab manual is also online at badger.physics.wisc.edu.

There are three make-up lab weeks scheduled for people with a valid excuse (like "I played basketball at Penn State that week"). Also, if you have a conflict on a given week, you can go to a different lab section if both TAs agree. Be sure to let your TA know that you've done the lab so it can be graded.

Each missed lab will lower your final grade by a step. Really. Labs contribute 20% of your grade, so they matter, and are often a major factor in students' final grade for the course. Show up, and have fun!

Discussion Sections

Discussions are the place to clarify ideas, ask questions, and work on problems together. You may ask about the homework before it is due, but your TA won't do your homework for you. If you have an issue with your discussion section or lab, don't hesitate to talk to me about it. Discussions and labs are for your benefit.

Honors

201 does not have an honors component, but you can get honors credit by attending the 208 honors section at 8:50 on Fridays in 2103 Chamberlin. Show up and let Prof. Mark Rzchowski know that you're in 202.
Homework

Homework problems are assigned each week and are due the following Monday at 11pm. **Late homework is not accepted.** Complete the homework online at [webassign.net](http://webassign.net). Note that you have free access for two weeks, so don't pay up front if you may drop the class early on. Use this class key to enroll: **wisc 6960 8721.**

You are encouraged to work on homework with other students, but be sure you understand the answers that you provide. My solutions will be uploaded to the course website on Tuesdays.

**Consulting Sessions: 2307 Chamberlin Hall**

Consulting sessions will be heavily manned toward the end of the week and on Mondays to give you help with your homework, which is due on Monday night. We'll also staff consulting on Tuesdays and Wednesdays during midterm exam weeks. Check the schedule on the course website.

Exams

There are two midterms and a two-part final; the midterms are given on Wednesday evenings:

- **Exam 1** Chapters 23–28 Wednesday, February 27, 7:15-8:45pm
- **Exam 2** Chapters 29–33 Wednesday, April 10, 7:15-8:45pm

If you have a legit conflict with one of these exams, we will schedule an earlier time slot for you to take it.

The final consists of a part covering the third unit, and a review part. The two parts are graded separately and each counts the same as exams 1 and 2. The final is given on **Wednesday, May 15, 7:25-9:25pm.**

- **Final Part 1:** Chapters 34–38
- **Final Part 2:** Review, Chapters 23-33

You'll be given both parts at the start so you can divide your time between them as you see fit.

Exams are closed everything, other than a calculator and writing implement. I will include a formula and constants sheet with the exam, which you'll receive ahead of time along with a practice test.

Grading

Your grade for the course is calculated as follows:

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>15%</td>
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<td>Exam 2</td>
<td>15%</td>
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<td>Exam 3 (final)</td>
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<tr>
<td>Exam 4 (final)</td>
<td>15%</td>
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<tr>
<td>Labs</td>
<td>20%</td>
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<tr>
<td>Homework</td>
<td>15%</td>
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<tr>
<td>Discussion</td>
<td>5%</td>
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You will receive a letter grade on each component using the standard A, AB, B, BC, C, D, F. Your final grade will be computed from the weighted average. Every student's grade will be discussed with their TA before finalizing it, and this can have an effect on people that are close to a grade boundary. Although I stick fairly close to 50% of students receiving a grade of B or better, I know that classes do vary, and if you impress me with good lecture participation and performance as a whole, I'll be more inclined to be generous with grading, since I'll be convinced that you're smarter than the average 202 class.