

Physics 116b, Electricity and Magnetism, Fall 2008

Section:02

Book: Young & Freedman **University Physics**, 12th Extended ed., Vols 2 & 3

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Course Web Page: <http://www.hep.vanderbilt.edu/simhelmsr/phys/116b/Overview.php>■

Course Instructor Web Page: <http://www.hep.vanderbilt.edu/~wjohns/classes/116b/>■

## Description

This course is the continuation of 116a. We will cover chapters 21-44 in *Young* (see above), which can be described as Introductory Electricity, Magnetism and Modern Physics. We will be skipping several sections as you can see from the syllabus.

I am your Lecture instructor. (The associated laboratory is a separate course.)

The lectures occur on

- ★ Monday, Wednesday and Friday mornings
- ★ Room 4327 Stevenson Center
- ★ 9:10 a.m. - 10:00 a.m.

Tests will be held in SC4327 and SC4309 in the evenings and will be common tests with the other 2 sections of 116b.

(Room for the final is not yet set)

Your attendance is appreciated. Your adherence to the honor code is required for all graded work (see note on homeworks below).

Note: I have left the specific homeworks assigned in the course open in the syllabus, but I will try to work ahead in Mastering of Physics so you can too if you want.

You might find it helpful to attend the other 116b lectures as well. In case you overslept, don't understand what I'm talking about, need to see things again, want more examples, like the other instructor better etc. Since we are trying to make the course coordinated for homeworks and tests, it really doesn't matter which

lecture you go to! The other 116b lectures occur on Tuesdays and Thursdays at 8:10 am – 9:25 am and 11:00 am – 12:15 pm.

## Lecture Grade

Your grade in the Lecture portion will be broken down in the following way. I will break down the Lecture portion grade into 100 points that you can earn during the semester.

- Homework: 15 out of 100 points

We're going to be doing lots of homework together. I think it is best to do homework near to the day it is assigned (depends on me getting it on the web...). Try not to fall behind! *Ideally*, you should be reading ahead in the book and asking questions in class. *Practically*, I would try to understand the examples in the book and class, homeworks and practice materials (see below). If you have a lot of difficulty, please come see me. Homework is due the Sunday evening (Monday at 4:00am!) after it is assigned. I will try to assign a few homework problems every week.

In addition to these homework problems, you should try to work through the problems posted for old examinations. This practice is VERY helpful if you do it.

Homework will be done using Mastering Physics on the computer. (I have a link on the web page.) It is important for you to meet the homework deadline! The computer can't give you an extension! It does reduce your score by 25 percent of the original total for each day it is late.

Many of you will work together on Homework and Practice Exams. This is great! You can learn a lot more working together, but please try to make your homework a good representation of YOUR abilities. (YOU are taking the course after all.)

Every Sunday from 7-9pm (except Break weeks), we will have a review/problem session in SC4327. This is a good opportunity to get help if you are stuck on homework.

As well, there is usually a review session given by me before each exam in class. Specifics are in the syllabus.

Also, we'll see how things are going, and maybe we'll need to modify things a bit.

- Partial Examinations: 60 total, 20 each out of 100 points

There will be four (4) partial examinations given during the course. Of these (4), I will drop your lowest grade. You should go to all the examinations anyway. These partial examination questions have a nasty way of showing up on final examinations. The partial examinations are based on material that you have already

seen in your assigned homework problems, the lecture, (and look at the old exams!). The exam questions likely will not be copies of what you have seen already. (Learning how to approach and solve problems in this class is more important than memorizing a specific equation for a specific physical situation.)

All exams will be given outside of class in the evenings, and we will have them on days when you will have completed all the relevant homeworks before you take the exam. (I Hope!)

By the way, that dropped exam can be a valuable bargaining chip for determining your final grade. Try to do well on it!

- Final Examination: 25 out of 100 points

This test is mandatory and comprehensive. Any subject covered in the lecture, assigned homework, (and look at the old exams!) or the hour exams can appear on the final. There will be a little more coverage of the very last part of the course as we will not have had a partial examination on that material.

- Summary

Item	Out of 100 points
Homework Problems	15
Partial Examinations	60(20 <i>each</i> )
Final Examination	25
<b>Total Lecture</b>	100

- Lecture Portion Grade Scale

I will use the following grade scale. Your actual grade may be slightly different (notice I haven't put any +'s or -'s in) depending on how everyone else does. For instance, if I write a test that had an unfair question on it, I may decide to drop that question when I compute your grade. Additionally, I do curve, and the curve will NEVER lower your grade. (I do not control your Laboratory Grade or the content of the labs.)

Grade	Percentage Range
A	90 – 100%
B	80 – 90%
C	70 – 80%
D	60 – 70%
F	<i>below 60%</i>

- Final grade

I intend to use the same scale for your final grade. I will calculate your grade this way:

$$\text{Final Percentage} = \left( \frac{\text{Number of Lecture Points Earned}}{100 \text{ Points total}} \right) \times 100\%$$

### Note to you

To me, this course is about learning how to solve problems. The homework is VERY important. You CAN learn how to solve problems by practicing. Please practice! **Practice Practice Practice!** When you read the chapters in the book, work the examples. If something doesn't seem right to you, investigate it or ask a question. Check your work. Does your answer make sense? Is there a way to compare this problem to one you absolutely know the answer to? This is your opportunity to learn!

### Office Hours

My office hours are:(room 6906 in the Stevenson Center)

(I spend a lot of time in 6924 too...)

★ 1:00 p.m.– 3:00 p.m. Wednesday

★ 1:00 p.m.– 3:00 p.m. Thursday

If I am not in my office, I will leave you a note where to find me. You are welcome any time! I'll let you know if I'm busy when you show up. (Try not to appear before I drink some coffee though. Really.)