

PHYS 1702 – Physics II Summer Session II, 2019

Professor: Dr. Christopher Aubin, Freeman 111B
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Meeting Times: M T W R 9:00 - 12:00 – Freeman 105
Office Hours: Immediately following class and by appointment
Required Materials: Openstax.org text: *University Physics Vol. 2* :
<https://openstax.org/details/books/university-physics-volume-2>
Subscription to WebAssign (Class Key: TBA)
16 3"x5" index cards

Course Description (from the bulletin)

Continuation of PHYS 1701.

Other useful texts

There are plenty of good calculus-based textbooks around if you want other sources. I would suggest *Physics for Scientists & Engineerings*, by Giancoli; *Fundamentals of Physics*, by Halliday, Resnick, and Walker; or *Physics for Scientists and Engineers*, by Serway and Jewett as possibilities.

Grade Policy

Online Problem Sets:	40%	Quizzes:	20%
Midterm:	20%	Final:	20%

You are expected to show up to every lecture, and although attendance is not *officially* part of the grade policy, not attending the lectures will have a severely negative impact on your grade. Given that this is a summer course, each day corresponds to roughly a week's worth of material from an ordinary semester.

Problem Sets

I will assign online problem sets roughly three times per week. They must be completed by the listed day/time, and no extensions will be granted. Each problem set has 17-44 available points (each part of a single problem is worth one point). Each problem set has an available maximum points given by 60% of the total possible. Any points above that value will be worth extra credit at 10% of its nominal value. For example, suppose you are working on Homework 3, with a total of 35 points available, so to get a 100% you must get at least 21 points from the problems you solve. You complete a certain number of problems so that you get a nominal score of 23.2 (of course you lost some credit here and there unfortunately). Thus, your recorded grade for this homework set will be $21.22 = 21 + (0.10) \times (23.2 - 21)$. So I encourage you to do as much as possible, as you are responsible for all material on the assignments. (Your maximum grade for the homeworks can still only be 100% however.)

Additionally there are Tutorials and Practice Problems that are not graded but are for your own benefit.

Collaboration on these assignments is encouraged, because one learns physics best with other people. However, you will be expected to do your own work, and **cheating will not be tolerated.**

Quizzes

There will be *daily* quizzes at some point during the class. These will be an active part of the course where I will set up a problem and have you put your answers down on a 3"x5" index card to turn in your solution. The idea is to have you think about a topic on your own whether or not we have covered the topic fully. There will be *no* make ups (that is, if you are not in class when we have the quiz, you cannot make it up)! However, I will drop the lowest 2 quizzes (including those that are missed) so if you miss one or two due to **any** unforeseen circumstances, it shouldn't affect your final grade.

Exams/Final

All exams will be in-class and closed-book exams. You will be allowed an equation sheet of your own (one side of a standard letter-sized sheet of paper). The equation sheet can include formulas and equations, but no words (thus no definitions) and no solved problems. The two exams will cover roughly half of the material each, and while the final is not *technically* cumulative, realize that physics builds on all previously learned material, and thus the final may include material from the midterm, or even the first semester of this course. **There will also be no make-ups allowed for the exams, make note of those dates listed below (especially the final), and plan your travel accordingly!**

In-class technology policy:

Electronic devices are **never** to be used during class, as they are a distraction from the course, and demonstrate a lack of respect for your peers and myself. This means no calling, texting, emailing, browsing the web, etc. Additionally, silence and put away your phones before coming to class (**they should not even be visible**). If you are caught violating this policy, I will most likely ask you to leave, because there is no reason for you to be here if you'd rather be online, and each offense will result in a **5 point reduction** in your final grade. (If there is some legitimate reason for needing your device out, you may obtain permission only if you come to me to discuss the reason.)

The one exception to this rule is your calculator. There will be times when I will ask you all to evaluate expressions numerically for me, and in this case you can use a standard scientific or graphing calculator (not a smartphone or computer — those are still banned).

Tentative topics

Chapters	Topics	Chapters	Topics
Vol. 2, Ch. 5	Electric Charge & Field	Vol. 2, Ch. 10	DC Circuits
Vol. 2, Ch. 6	Gauss's Law	Vol. 2, Ch. 11	Magnetic Forces & Fields
Vol. 2, Ch. 7	Electric Potential	Vol. 2, Ch. 12	Sources of Magnetic Fields
Vol. 2, Ch. 8	Capacitance	Vol. 2, Ch. 13	Magnetic Induction
Vol. 2, Ch. 9	Current & Resistance	Vol. 2, Ch. 14-15	EM Inductance & AC Circuits
		Vol. 2, Ch. 16	Electromagnetic Waves

Please note that Volume 3 of the OpenStax textbook covers Optics, which we will not get to explicitly in this course (most likely). However, it is covered in the associated lab course.

Exam Dates:

TBA	Midterm
TBA	Final Exam

By remaining enrolled in this course, you are agreeing to terms laid out in this syllabus.