

Aug 2007

Dear Young Collaborator,

Welcome to #107, that is the number of semesters I have been working with young folks. First they were peers, then children, and now grandchildren and beyond. Over these 53 years it has been my pleasure to get to know each one of my “buddy physicists” and work to develop his/her new talents to the max. I must tell you that once you sign on to work with me you are special, so I urge everyone to participate and make this another exciting semester. Take care. God Bless You!

- 1) The following notes should help in this endeavor. It is important to recall that Physics is SIMPLE but it is NOT EASY. Phys122 is significantly harder than Phys121, so it requires even deeper commitment from each one of us. Your job is to ask questions in class (if you are comfortable) but definitely outside of class at the first possible opportunity. This is a privilege that no student should ever concede. Answers can be dumb, questions NEVER (see also 11 below): to facilitate such discussion, I have L-O-N-G office hours.

Times: 9:30 AM- 6:00 PM

Days: Mon, Tues, Wed, Thurs, Fri

Note: Your visits earn a Bonus, see 6 below.

Later in the semester we may organize office hours on Sat and Sun also.

- 2) My job is to help you construct a succinct, consistent answer, which makes sense (to you). Sometimes the answer is so simple that you get the feeling—the old man is making fun of me. Not true. Fact, I have spent years addressing questions and developing concepts. You just got started. Every problem is hard until we figure out the solution. The bottom line is: There is NO SUCH THING AS A DUMB QUESTION.
- 3) The concepts are subtle, the derivations tricky. Just listening to lecture and/or reading material once is not enough. We need all five:

Lecture—introduces you to concepts

Discussion—Me (office visits, bonus, see 6 below)

Discussion—T.A. (office visits)

Notes—Online (see 10 below)

Problem Solving—(You + T.A. + Me)

- 4) The Book: Alas it does not provide all that we need, but it is important. Quiz problems (worth 100 points) come directly from the book. 1/6<sup>th</sup> of your grade depends on quizzes. Helps boost your grade!

- 5) Laboratory: Very important. Do every experiment, get every report graded. Helps boost grade!
- 6) Bonus: Every office visit with me adds a bonus of 2% to your earned grade. 5 (five) visits count. Maximum bonus 10%

Example: Exam Grade 80/100, 5 visits, Bonus 8.

VISITS ARE ENTIRELY YOUR DOING. THERE IS NO UPPER LIMIT. SO DROP BY AND LET US SHARE.

- 7) Formulae For Sale: Although “formulae” sheets are provided, you can also buy a formula (for one point) during any exam.
- 8) Problem #'s on the schedule: 13-8 means problem 8 of chapter 13.
- 9) Roughly speaking, the letter graded at the end will be determined as follows:
  - A → 510-600 [A+>580]
  - B → 420-509 [B+>480]
  - C → 320-419 [C+>390]
  - D → 250-319 [D+>300]There is no “curve.”

- 10) To supplement the book, notes will be put online (as well as in the library, if permitted). I, as well as your T.A.'s always have a copy, so, in a pinch you can access them from us. Altogether, for the semester, the notes will amount to about 150 pages. Since the exams are based on our class discussion please read the notes carefully.
- 11) In all honesty, I am fully aware of my limitations as well as the complexity and subtlety of the concepts to be presented. Plus, they pile up ever so quickly. That is why I push frequent one-on-one discussions.

It is important to mention that when we discuss a concept/phenomenon/solution to a problem, you should write down the answer a.s.a.p. We can then go over your notes to make sure that what we discussed has indeed been understood and if there are blanks they can be filled. By the way, please do not get too angry if sometimes a voice gets raised. There is nothing personal. And there is no implication that you are to blame. Rather, it is a reflection of the fact that sometimes one gets frustrated because one is failing to communicate even a fairly straightforward idea. Keep in mind that I am dealing with over 120 of you.

12) Many of you ask for letters of support—for gaining admission to professional schools. I am happy to write such letters of recommendation based on our interactions. Visits are truly important.

God Bless You!  
SMB