

Graduate Student Guide to the 2020 Labs & Recitation Sections & Grader Assignments

Fall 2005

Prof's Anderson and Finkelstein

You are expected to have fun and work hard though not more than 20 hrs / week for your total TA assignment. Your duties include running and grading labs/recitations, grading written homework, grading mid-term exams, and holding office hours in the help-room. These are described in detail below

You will be in charge of 2 recitation & lab sections for this class. The sections meet every week with the exception of optional weeks for the students. Note that these sections run on a Monday - Friday schedule.

Schedule: There are 10 labs in this course. Students must complete 8 in order to pass the course. There will be some required and some optional recitation sections.

Week 1: (8/22) Lab 1: Electric Charge (note this starts on the first day of class)

Week 2 (8/29): lab 2: Potential / fields

Week 3 (9/5) : optional recitation – Monday is Labor Day

Week 4 (9/12): recitation – prep for upcoming exam on next Tues eve:

Week 5 (9/17) : Lab 3 – Circuits (Voltage) – note this is during an exam week

Tues Sep 20: 7:30 exam 1 – G1B30

Week 6 (9/26): Lab 4: - Circuits (current)

Week 7 (10/3): Lab 5: Magnets

Week 8 (10/10): optional recitation –lab prep 2 (Fall Break week)

Week 9 (10/17): Lab 6: A/C

Tues Oct 18: 7:30 exam 2– G1B30

Week 10 (10/25): Lab 7: Lenses /geometric optics

Week 11 (10/31): Lab 8: Diffraction

Week 12 (11/7): recitation – exam prep 3

Week 13 (11/14): Lab 9:

Tues Nov 15: 7:30 exam 3– G1B30

Week 14 (11/21): optional recitation (Thanksgiving)

Week 15 (11/28): Lab 10:

Week 16 (12/5): makeup week

Final: Dec 12 1:30 – 4pm– G1B20

The labs will be posted on the Friday prior to the Monday when labs begin.

Recitations will be largely your construction; though, I'll provide you with plenty of materials to spend roughly 2 hours engaging the students.

Missed Labs: Students are allowed to make-up TWO missed labs maximum. Students are highly encouraged to make-up labs the week they are missed in another section of 2020. If they cannot,

they are allowed to make up ONE lab, during the makeup week at the end of the semester. Students should arrange with their lab TA either form of makeup. The student will turn the lab into the make-up TA, who will hand it to the original TA for grading at the weekly TA meeting (or on their own).

In addition to make-ups, the lowest of the 10 Lab scores will be dropped. ***8 completed labs are still required to pass the class.***

Philosophy:

In general I want to promote group work, and collaborative effort. Each student will hand in her own work, but is encouraged (demanded?) to work with others. Your job is more of a coach than a pontificator. Set up exercises for them to do most of the time rather than you working at the board telling them what to do. Have them explain to each other what worked. You can work at the board and organize the class, work through problems, etc., but if this is more than 1/3rd of the time, the students will not be getting what they are paying for.

Resources for recitation section:

Concept tests: <http://galileo.harvard.edu>

Local resources: <http://www.colorado.edu/physics/EducationIssues/>

The book: Giancoli

Weekly meetings with NF (I'll provide possible outlines)

Lecture demonstrations (pick one to use each recitation section).

Grading

You are to keep grades for each of the sections and for each student. The grading metric for the labs, recitations, and long answer homework, will be on the student hand-out. The focus of your work on labs is NOT grading. We are looking for a quick evaluation to provide students feedback that they are on track. NOTE: that the point scales for indep. sections of the class do not reveal the weight – i.e. student LABS are out of 10 points but contribute to students overall grades more than the Homework (also out of 10 points).

LAB:

0 – 3 points on the prelab:

Prelab questions are to be answered on-line, printed out and handed-in at the beginning of lab.

0 – not done/ totally shoddy effort

2 – done incompletely with effort

3 – thoroughly done with effort

0-6 points on the lab itself:

Labs are to be completed during the allotted two hour time for section

0 – did not participate

2 – turned in something / participated but evidently not engaged

5 – standard work, completed with legitimate effort

7 – absolutely well done / thorough etc.

In a typical week there might be one or two students who get a 10, with the bulk of the class who did well concentrated around 8

HOMEWORK (long answer)

You will also be grading long answer homework problems which are assigned roughly each week. They will be in your mailbox following lecture on Monday. These are to be returned to your students at the next recitation section/ lab where you see them.

Homeworks are to be graded on a 0 – 10 scale. The homeworks will often have several parts and each part should be graded as a subset of the 10 points. You are to grade students on effort, completeness, correctness; however you are not to spend your time correcting homework, or tracking down detailed student reasoning. (Complete solutions will be posted on the web for the students to download.) Instructions for homework will be provided during the first assignment.

RECITATIONS should be graded on a 10 point scale:

- 0 – did not attend
- 3 – was present but only physically
- 9 - basic level of participation; standard grade.
- 10 – unusually present (in a good way)

As you may observe I want you to spend your time interacting with the students, providing detailed solutions /strategies/ concepts around the labs, recitations, and homework. Do not spend a long time grading.

Important: I will be providing you with grade sheets (in excel format). Please use these (or identical format which you can send me in csv, or tab-delimited). I will be assigning the mean (across all your sections) and standard deviation. This is not simply an exercise in me being Draconian, but rather me being all-powerful.

CAPA:

We have an online homework system which will take the burden off you for grading the bulk of homework assigned. These are in addition to the long-answer homework. Each week 1 – 2 of you should thoroughly go through the CAPA set that will be assigned for the following week. We will make a schedule for which weeks you're doing CAPA during our TA meeting. CAPA will be assigned on Friday and due the following Friday (5p or midnight). It is important that you complete your test of the CAPA system by WED before the Friday that it is assigned to the students.

Course Meetings

We will meet weekly for 1 to 1.5 hours to discuss the labs, recitations, and issues in the class. The time of this meeting will be set in our first meeting (when you are reading this).

Your hours should break out roughly:

TA duties 2020

(2/3rds 3/4ths time) – 13 –15 hrs/ wk

| | |
|-------------------------|---------------------------|
| Lab / Recitation: | |
| In-lab | 4hrs |
| Grading lab /recitation | 1.5 hrs |
| Prep | 1 hr |
| CAPA HW / text | 1 hr |
| Grading long-answer | 1.5 hrs |
| Weekly meeting | 1 hr |
| Office hours | 2 hrs (sign up help room) |
| Attend lecture | 1 hr |
| Exam grading | 1 hr |

If you are working radically different hours than this, let me (NF) know.

Course website:

<http://www.colorado.edu/physics/phys2020>

Exam Graders:

It will be your job to grade the long-answer portion of the 3 mid-term exams, and to proctor the 3 exams and the final. I will divvy up these duties as we get closer; however, here is a quick breakdown:

Tues evening 7pm arrive to prep for exam

proctor exams until 9pm or so.

We will grade the next day or evening, with your input.

By Thursday AM we will have all the exams graded, and the long-answer portion scores bubbled onto the scan-trons for the students. One of you will run these to the scanning services.

You are all responsible for grading each of these exams; however, you can trade off duties to work double assignments if you have to miss a particular exam.

Taylor's Top Ten Tips for T.A.'s

(Actually, it's fifteen, and slightly edited by Mike Dubson)

1. Never, ever, be late. Come early and start on time. And never go late, finish on time.
2. Come prepared.
3. Never demean students; never show irritation or condescension. Every question is a good question.
4. Don't be afraid to repeat yourself.
5. Speak clearly and LOUDLY. (You cannot speak in a normal tone of voice to 30 people in a classroom. You must "boom" your voice.)
6. Write clearly on the chalkboard.
7. Try to know your students' names.
8. Grade promptly.
9. Accumulate lots of scores with a good spread.
10. Time office hours thoughtfully and encourage attendance.
11. Keep in touch with lectures and course rules.
12. Don't sit in the back grading.
13. Get students involved. The less you talk, the more they talk, the better the class.
14. Show enthusiasm.
15. Make class enjoyable.

GO VISIT STEVE POLLOCK's VERSION OF THIS TOO at:

<http://www.colorado.edu/physics/EducationIssues/>

see issues for graduate students