Teaching Responsibilities as a Graduate Student

Jeremy Dodd
T.A. Supervisor (2018-2019)
Welcome!

Teaching is a very important aspect of your graduate education:
- It will help prepare those of you who go on to careers in academia/teaching
- It will provide excellent experience in giving oral presentations (good practice for seminars, conferences,...)
- It will help you gain a deeper understanding of fundamental physics, through interactions with students
- It can be tremendously rewarding and enjoyable

The Teaching Assistants (T.A.s) provide very important assistance to the Department, through their various teaching roles

These contributions are valuable and valued!
Overview

1st year graduate students usually have the following teaching duties during each semester:

- Teaching a lab section for the introductory undergraduate labs (3 hours/week), plus preparation (~1 hour/week)
- Grading lab reports (~3 hours/week)
- Staffing the Physics Help Room and Lab Library (2 hours/week)
- Proctoring lecture course examinations (~3 times/semester)
- Grading lecture course examinations (~15 hours/semester)
- Teaching Assistants (also known as Teaching Fellows) attend regular TA meetings, usually held on Friday lunchtimes, to discuss the upcoming lab experiments, and other T.A. duties (the first of these will be this Friday, Aug. 31st from 12:00-1:30, in 705 Pupin)
Overview

- In addition (optional, for pay):
  - Staffing of Lab Library; (possibly) weekly recitation and grading work for Physics courses
- Typically, these responsibilities represent a commitment of about 10-12 hours/week in total
- International students who are required to take an American Language Program course in the fall of 1st year are excused from some teaching duties:
  - This usually means excused from conducting lab sections, but required to grade, proctor and staff the Help Room
  - International students attend the T.A. meetings
  - Start teaching lab sections in spring of 1st year
The Laboratory Experiments (Labs)

- In the 1st year, you will be teaching sections for the 1291-1292 introductory lab sequence (2 semesters)
- This accompanies the 1201-1202 General Physics lecture course, largely for pre-medical students (2 semesters)
- Sections typically have 14-15 students
- Experiments are intended to reinforce and supplement material from lectures:
  - Mechanics
  - Waves
  - Thermodynamics
  - Electricity and Magnetism
  - Optics
  - Modern Physics
The Laboratory Experiments (Labs)

- Running a good lab section requires advanced preparation (T.A. meetings, plus time spent doing the experiments ahead of time)
  - You should perform all of the experiments yourself in advance
  - (Most) experiments will be set up in the Lab Library, 506 Pupin
  - Labs will start in mid-September
- A disciplined and professional attitude at all times is important
- You will be grading the lab reports from your section – to be returned to students the following week
- T.A.s are responsible for assigning grades at the end of the semester, with guidance from the T.A. supervisor
Grading and Proctoring

- Grading the lecture course examinations is a very important T.A. role
- Most undergraduate courses will have 1 or 2 Midterm exams plus a Final exam
- Timely, accurate and consistent grading is very important
  - Usually exams are graded and returned within 1 week
- Proctoring (monitoring) of the exams is also required
- We will go into more detail on grading and proctoring later in the semester
The Department offers a Help Room (413 Pupin), staffed by T.A.s, to provide help for undergraduates with physics questions, homework, etc. Every T.A. is expected to staff the Help Room for 1 hour/week, giving hints for problem-solving, asking questions to guide students,… Help Room will typically start in the 2nd week of semester. Busiest times are prior to exams.
Preceptors

- Two of the 2nd year graduate students are assigned as Preceptors for the year
  - For 2018-2019: Mike Berkowitz and Luke Krauth (729 Pupin)
- Mike and Luke will coordinate and oversee the assignments of T.A.s to the various roles, advise on any TA issues, participate in the T.A. meetings,…
- The Wiki [https://phys-1291-labs.wikispaces.columbia.edu](https://phys-1291-labs.wikispaces.columbia.edu) and URL [http://phys.columbia.edu/~preceptor](http://phys.columbia.edu/~preceptor) will soon have a lot of useful information from the Preceptors
- They are here to help you, and the Department
- Please give them your support and cooperation!
More information

- Physics Department Teaching Assistant Manual:
  - Hard copies now
  - Also available on the Preceptor website
  - Now is a good time to read the TA Manual carefully

- You are also encouraged to read the GSAS Teaching Manual for all graduate students:
  - [http://gsas.columbia.edu/content/gsas-teaching-center](http://gsas.columbia.edu/content/gsas-teaching-center)

- and other useful information from the Graduate School:
  - [http://gsas.columbia.edu/content/professional-development](http://gsas.columbia.edu/content/professional-development)

- You are strongly encouraged to attend the GSAS New Teaching Fellow Orientation sessions – Thursday from 9:00-3:00 in 203 Low Library – please sign up!
People to know

- Your Preceptors: Mike and Luke (729 Pupin)
- The Undergraduate Assistant: Joey Cambareri (704)
- The Introductory Lab Technician: Jocelyn Rosenfeld (510)
- The T.A. Supervisor: Jeremy Dodd (924)
- Check out the Preceptor website frequently
- Also, be sure to check bulletin boards on both the 5th and 7th floors on a regular basis
- We look forward to working with all of you!

- See you on Friday, Aug. 31st, at 12:00pm in 705 Pupin – lunch will be served!