

FRIENDLY ADVICE FOR TEACHING ASSISTANTS

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Nothing that is written here is “correct” in any absolute sense.

1. MOST IMPORTANT

- (1) Be professional and courteous to all students, without bias.
- (2) Be familiar with the material being taught in class before you meet with students.
- (3) Do not get into an argument with a student. If you feel a discussion is getting out-of-hand, then ask the student to come and meet you outside class. If it gets worse, please report it to the instructor.
- (4) Do not divulge sensitive information to the students, such as their scores on quiz/exams, or questions that may appear on an exam, etc.
- (5) Do not establish personal relationships with any student. Don't be rude, but maintain a professional distance.
- (6) If you feel a student has very serious personal or academic issues, report them to the instructor immediately, and discreetly.
- (7) Do not use any language other than English. However, you may do so outside the classroom if you feel that it helps a student understand better. But do so *only if* you know that all the other students around you understand the language.
- (8) Discuss your teaching with the instructor and other TAs frequently. If there are any issues, bring it to the instructor first; not as a last resort.

2. PREPARATION BEFORE CLASS

- (1) Solve all problems before going to class; don't underestimate the difficulty of a simple calculation. Take your notes to class and refer to them as much as needed, there is no harm.
- (2) Anticipate what questions might arise, and write down answers to them as well.
- (3) Plan how much time you are going to spend on each problem, allowing for questions. Write down this plan, and see how much you deviate from it. Evolve this plan as the semester goes on.
- (4) Always have some extra problems in hand, in case you complete your planned problems early. Try not to let a class go more than 5 minutes early.
- (5) If there are any important announcements to make, or if you have to address a question you left unanswered in the previous class, write that down at the top of the page, and announce it at the beginning of the class.

3. CONTENT

- (1) Do not spend more than 10-15 minutes on a single problem. You should plan to solve at least 4 problems in a single tutorial, if not more.
- (2) Do not replicate what the instructor has taught by discussing theory too much - instead focus on solving the problem. Theoretical discussions should be short.
- (3) Make sure that everything you say/write is correct. If you are not sure about something, it is OK to say “I don't know” and either inform the instructor, or get back to the student later with an answer.

4. ANSWERING QUESTIONS

- (1) Ask questions, and encourage the students to participate; but not too much. Time management is an important skill.
- (2) Understand a question *completely* before answering it.

- (3) Be patient, and answer trivial questions, but once again, do not let the discussion go for too long on pointless issues.
- (4) Never say or imply that a question is ‘trivial’, even if it is.
- (5) If a student does not understand the first time, try a different way of explaining - perhaps with a picture or a different example. Repeating the same answer again is not helpful.

5. USING THE BLACKBOARD

- (1) Make sure that everything you say/write is consistent with the textbook.
- (2) Write legibly (big), and use pictures wherever possible.
- (3) Break the board up into ‘panels’ before you begin a class, and cover each panel before moving on to the next one. Cover the entire board before erasing anything. Also, erase a panel completely before writing on it again.
- (4) Do not obstruct your own writing - write to the side.

6. COMMUNICATION

- (1) Face the class when you speak. Do not talk to the board.
- (2) Speak clearly, loudly, and a little slower than you would in normal conversation.
- (3) Pause after asking a question. Repeat long answers, pausing at the difficult steps.
- (4) Make eye-contact with the student(s) when you are answering their question.
- (5) Make sure all students are involved in class. If a private discussion is going on, draw their attention to the class by asking a question or cracking a joke.

7. GRADING

- (1) Decide on a grading policy before you start grading. Don’t deviate from it unless absolutely necessary. If you must deviate, make sure that you go back and re-grade all the earlier papers.
- (2) Always be fair to all students. Grade what is written on the paper, not what you *think* the student knows.
- (3) After grading, enter all grades into the gradesheet and double-check your addition while doing so.

8. MISCELLANEOUS

- (1) On the first day, write the course number, your name, email address and the time and place of your office hours on the board. Introduce yourself.
- (2) Try to learn the names of all students in 3-4 weeks.
- (3) Use office hours to have one-on-one discussions with students. Discuss theory, and any problem they may have, however silly it may seem.

If you would like a faculty member to visit your class, see what you are doing, and give you feedback, then please drop them an email.

For more on teaching mathematics, have a look at Steven Krantz’s “How to teach Mathematics”.