

Manual for Teaching Assistants in UCLA Mathematics and PIC courses

1. Introduction

Teaching assistantships are the primary method by which graduate students are financially supported in the Mathematics Department. They are awarded on the basis of competence in the area of knowledge, preference, and competence of prior instruction. While the Department makes a strong effort to respect preferences, the mission of delivering needed instruction is primary, and TAs may sometimes be assigned courses in which they are competent but for which they have not expressed a preference. Teaching competence is also an essential component for continued assignment of assistantships.

Teaching Assistants, Teaching Associates, and Teaching Fellows (from now on all referred to as TAs) play an essential role in undergraduate and graduate education at UCLA. The goal of this handbook is to provide general information, to set forth the University and Departmental policies and procedures pertaining to the instructional responsibilities of TAs, and to provide some ideas about how to be a good teaching assistant in the Department of Mathematics. More valuable information can be found in "The TA Handbook" by the Center for the Advancement of Teaching (CAT) at UCLA <https://www.teaching.ucla.edu/tatp>.

2. Important People

Chair: Mario Bonk, MS 6363B/6137, x54948, mbonk@math.ucla.edu

Chief Administrative Officer: Ronke Epps, MS 6363F, x54832, ronke@math.ucla.edu

Graduate Vice Chair: Wilfrid Gangbo, MS 6356D, x54971 wgangbo@math.ucla.edu

Co-Undergraduate Vice Chair: Michael Hill, MS 6925, x52229, mikehill@math.ucla.edu

Co-Undergraduate Vice Chair: Don Blasius, MS 6356A, x61286, blasius@math.ucla.edu

Student Affairs Supervisor: Leticia Dominguez, MS 6356C, x58588, leticia@math.ucla.edu

TA Training Faculty Advisor: Will Conley, MS 5366, x54462, wconley@math.ucla.edu

Graduate Advisor: Martha Contreras, MS 6356, x54971, martha@math.ucla.edu

Graduate Officer: Brenda Buenrostro, MS 6356, x54971, brenda@math.ucla.edu

Department Ombudsperson: Inwon Kim, MS 7923, x50161, ikim@math.ucla.edu

Teaching Assistant Consultants (TACs): 2020-2021

Robert Housden MS 6603 rhousden@math.ucla.edu

Thomas Merkh MS 6603 tmerkh@math.ucla.edu

3. Useful Websites

- Academic Calendar: <http://www.registrar.ucla.edu/Calendars/Annual-Academic-Calendar>
- UCLA General Catalog: <http://catalog.registrar.ucla.edu>
- Information on math undergrad programs: <https://ww3.math.ucla.edu/undergraduate-program/>
- Schedule of Classes for the current quarter: <https://sa.ucla.edu/ro/Public/SOC>
- General graduate course outlines: <https://ww3.math.ucla.edu/courses-2/>
- General undergraduate course outlines: <https://ww3.math.ucla.edu/courses/>
- Class rosters: Log onto your MyUCLA account via <https://my.ucla.edu/>

4. The Job: Description of TA Commitment, Responsibilities and Limitations

The responsibilities of TAs extend from the beginning of the quarter through the week after Finals week for grading. TAs are required to be available, at least remotely and if needed, for at least the initial portion of the week after Finals week for grading. Note that the beginning of the quarter is *not* first day of instruction, but usually about a week before the first day of instruction. This year the dates for the Fall, Winter and Spring are:

Fall 2020

Quarter Begins: Monday, September 28, 2020

Instruction Dates: Thursday, October 1, 2020 – Friday, December 11, 2020

Examination Period: Saturday, December 12, 2020-Friday, December 18, 2020

End of Quarter: Friday, December 18, 2020

Winter 2021

Quarter Begins: Monday, January 4, 2021

Instruction Dates: Monday, January 4, 2021 – Friday, March 19, 2021

Examination Period: Saturday, March 13, 2021-Friday, March 19, 2021

End of Quarter: Friday, March 19, 2021

Spring 2021

Quarter Begins: Wednesday, March 24, 2021

Instruction Dates: Monday, March 29, 2021 – Friday, June 4, 2021

Examination Period: Saturday, June 5, 2021-Friday, June 11, 2021

End of Quarter: Friday, June 11, 2021

TAs are expected to be available during these periods and, at least remotely and if needed, for at least the initial portion of the week after Finals week for grading. Your responsibilities depend on your assignment and include, but are not limited to those described below. You will be notified in detail of your responsibilities in each course of which you are a TA before the end of the quarter by the course instructors.

If you have a 50% appointment (called unofficially a *full-time* TA) you are assigned to two courses. If you have a 25% appointment (called unofficially a *half-time* TA) you are assigned to one course. UCLA courses are either Lower Division (with course number less than 100) or Upper Division (with course number larger than 99, but smaller than 200) or Graduate (with

course number at least 200). What follows is a brief description of what your minimum commitment will be for each of your courses. This minimum is binding to both instructors and TAs. *The actual work load may be enlarged by instructors within the constraints of the union contract that governs TA employment, i.e. up to the maximum that contract allows, as is now described.*

4.1 Expected Workload and Maximum Workload

In the Math Department, the *typical average* amount of work required of a TA with a 25% TA appointment is around 80-85 hours total, throughout the whole quarter. This means an average of about 7.5 hours per week, but keep in mind that this will usually be lower in non-exam weeks and higher in exam weeks. The total load should be expected to be roughly double for a 50% appointment.

Since Fall quarter 2000, all Teaching Assistants (TAs) have been covered by a collective bargaining agreement between the University and the UAW. The agreement can be accessed on the Internet: <https://ucnet.universityofcalifornia.edu/labor/bargaining-units/bx/contract.html>. The terms of the contract must be adhered to. In particular, the total amount of work demanded by instructors *must never exceed* these limits.

According to Article 31 Workload of the contract:

- A TA with a 50% appointment shall not be assigned a workload of more than 220 hours per quarter. This standard shall apply proportionately to other percent appointments.
- In addition, a TA with an appointment of 50% or less shall not be assigned a workload of more than 40 hours in any one week or 8 hours on any one day. The number of hours worked in excess of twenty (20) hours per week may not total more than 50 hours per quarter.
- The contract does not mention 25% appointments but the interpretation of the above two requirements for a 25% appointment is that a TA shall not work more than 110 hours per quarter, more than 40 hours in any one week, more than 8 hours on any one day, and the total number of hours worked that are in excess of ten hours per week may not total more than 25 hours in the quarter.

These are upper bounds for your work and you should not exceed them. As mentioned above, the typical expected number of hours required of a TA is substantially less than this amount. As a practical rule, if midway through the quarter you find that the number of hours an instructor is requiring you to work is on a pace to exceed 95 hours for the whole quarter (i.e. an average of more than 8.5 hours per week), you should consider this a warning bell. You are advised in this circumstance to bring this up with the instructor, or speak with the Teaching Assistant Faculty Advisor (currently Will Conley), the Graduate Vice Chair (currently Wilfrid Gangbo), or the department ombudsperson (currently Inwon Kim) . See section 8 below for more details.

Working hours

Classes at UCLA meet regularly between the hours of 8:00 AM and 7:00 PM, Monday through Friday. It is department policy that a TA not be required to work outside of these hours, with the following exceptions: final exams are sometimes scheduled from 6:30 to 9:30 PM; and rarely, a course may have midterms scheduled in the evenings, outside of normal class times, and/or a

final exam scheduled on the Saturday or Sunday of finals week. In these cases, the TA will be required to proctor the exams in the evening or during the weekend, unless exempt from such work obligations due to, for example, religious observances.

Note that the dates and times of final exams, as well as evening midterms that are outside of the normal class time, are listed months before the quarter begins on the UCLA Schedule of Classes website: <https://sa.ucla.edu/ro/public/soc>. As one of the TAs for a class, it is your responsibility to ensure that you are available to proctor the midterms and exams. If you are unable to do so, you may speak with the Student Affairs Supervisor, currently Leticia Dominguez, to change your TA assignment to another class. Alternatively, with the instructor's approval, you may have another TA substitute for you for these proctoring duties.

4.2 Detailed Minimum Workloads

If you are assigned a large section lower division course, you must, for each such course to which you are assigned,

- hold two 50-minute discussion sections per week for two disjoint groups of about 35 students
- hold 1 office hour per week; hold 1 additional office hour every two weeks (see below for details)
- help proctoring and grading midterms and the final exam.

In these cases, there is a Reader assigned to the course. The Reader is another person (usually an undergraduate) who is assigned to grade homework and possibly quizzes for your course (see 6.5). If the instructor assigns both quizzes and homework, you may be responsible for grading quizzes, too.

In some cases, a lower division course may have small enrollment and only one discussion section and no reader. For such classes, the rule below for upper division courses is followed.

If you are assigned an upper division course with no reader you must, for each such course to which you are assigned

- hold one 50-minute discussion section per week for one group of about 40 students
- hold 1 office hour per week; hold 1 additional office hour every two weeks (see below for details)
- grade homework and/or quizzes, as requested by the instructor
- help proctoring and grading midterms and the final exam

As a rule of thumb, upper division courses usually require more work outside the classroom on your part, but many people find them more fulfilling than lower division courses. Since the amount of homework, you grade is scalable, you can inform your instructor of the maximum you can grade.

There is currently one exception to the rules above. For Math 115A Linear Algebra, there is a reader who grades the homework. The TA

- holds two 50-minute discussion sections per week for one group of about 35-40 students

- hold 1 office hour per week; hold 1 additional office hour every two weeks (see below for details)
- grades quizzes, if asked
- helps proctoring and grading midterms and the final exam.

Math 115A (Linear Algebra) gives a fully rigorous axiomatic development of abstract linear algebra. In the second discussion section the TA teaches new material, which may include at the outset general content on proofs. For more information see:

<http://www.math.ucla.edu/ugrad/courses/math/115A>

If you are assigned a **graduate course** from the list {210A/B/C, 225A/B/C, 245A/B, 246A, 266A/B, 269A/B, 275A}, the TA must

- hold one 50-minute discussion section per week for one group of about 40 students
- hold 2 drop-in office hours per week at fixed weekly times
- grade homework
- help proctoring and grading midterms and the final exam

In order for a graduate student to TA a graduate level course they must meet the following criteria (AAP Manual pg.8)

- Completed 3 quarters of graduate coursework in UCLA Mathematics
- Earned an A- or better in the course (or equivalent course at another institution)

Office hours

For the purposes of this section, “office hours” will refer to regular drop-in hours held in your office or another scheduled room, as well as drop-in hours held in the Student Math Center (SMC) and the PIC Lab, or, finally, office hours held via Zoom. In all cases, the time must be fixed.

Here are the responsibilities. For each course to which you are assigned, you must hold office hours of two types. The first is an office hour lasting at least one hour at a fixed time every week which is open only to the students in your own discussion section(s) of the course. The second is an office hour lasting at least one hour, held at a fixed time every two weeks, which is a. open to all students enrolled in any lecture of the class, and b. open to all students in a selected set of 2 or 3 additional classes, usually prerequisite classes, as determined by the file TA Open Office Hour Course Coverage.

The “Open Office Hours” are scheduled by the Graduate Office near the end of the prior quarter. Late in the quarter, all grads will be sent a link to an online form where they can indicate their preferred times and the times at which they cannot be available. Scheduling will take this information into account and will be done to maximize the amount of office hour coverage for the courses of largest volume.

In suspension during pandemic:

If one or more of your courses is a lower division Math course from the list {1, 3A/B/C, 31A/B, 32A/B, 33A/B, 61}, then one of your office hours must be held in the SMC, at a fixed time, during

which any students in any of the above listed courses may drop in to ask you questions. You must schedule your SMC hour with the Graduate Officer, Brenda Buenrostro, in the Student Affairs Office no later than the first day of classes.

If one or more of your courses is a PIC course, then one of your office hours must be held in the PIC lab, at a fixed time, during which students in any section of your course may drop in to ask you questions.

Regular drop-in office hours should be held at a fixed weekly time, in your office or another scheduled room. They should be open to all students in your own discussion sections. If you are assigned two different courses, you are expected to have students from only one of the courses in a given office hour. However, in order to increase efficiency, it is acceptable to simply prioritize one course for the office hours. In application, this means that you will help students from the non-prioritized class only when there are no students from the prioritized class who are seeking help, and that, if you are so engaged, you will stop shortly after such a student arrives.

4.3 All Courses

In addition to the above described responsibilities that vary from assignment to assignment these are typical tasks you may be asked to do in any of the above courses:

- administering a quiz in your discussion, in case the instructor chooses to give quizzes
- attending any meetings that the instructor schedules
- recording test scores (this is automatic with Gradescope)
- attending occasional lectures of the course

Limitations

Items you (TAs) may not be asked to do include:

- substituting for the instructor in lecture
- modifying exam scores
- assigning final grades
- attending all lectures of the course
- selecting homework assignments, preparing examinations, or preparing quizzes

A TA may be required to attend one lecture per week, provided that the TA does not have a class of their own at that time. If a course is taught in a highly structured or interactive style, such as a flipped class, an instructor may request that a TA attend up to two of the lectures per week, but only if this is compensated by a corresponding reduction of one hour per week elsewhere, such as reduced office hours or grading responsibilities.

There is one exception to the above limitations: a Teaching Fellow may be given complete responsibility for the instruction of a course, normally lower division, under the general supervision of a regular faculty member.

Further Workload Discussion

The TA is an essential provider of instruction in the discussions, office hours, and in the feedback provided through grading. However, the exact duties of the TA depend on the course and the instructor's design of it. Each course is different as are the activities that can be requested by the instructor.

As mentioned above, as a rough guideline, for most courses the average load should be no more than 7.5 hours per week. However, some courses may naturally be more demanding because of the nature of the material (and your familiarity with it) and the design of the course. With respect to upper limits, in Mathematics a .25 TA is generally not asked to work more than 8.5 hours per week on average over the quarter. If you are in doubt about the expected level of TA effort required in a course, please consult the Undergraduate Vice Chair.

If the 8.5-hour threshold is passed, you have the right to discuss reduction in load. You can discuss this directly with the instructor, or, if that is awkward, invoke an arbitration process in which you will meet with an arbitrator appointed by the chair of the department, or one of his delegates, usually one of the vice chairs or a member of the Teaching Committee. Naturally, in such a circumstance it is necessary to state the amount of time you need for the components of the course.

In any week in which an instructor is requesting extra time, especially more than 10 hours of work, it is recommended that you let the instructor know of this fact, if they are not already aware of it. Instructors are mandated to be as flexible as possible. For example, you may have commitments which prevent or impair exam grading on your instructor's preferred schedule. Since the decision to grade on a particular schedule is essentially arbitrary, without pedagogical significance, the instructor should be accommodating. Instructors may ask you to offer additional office hours or review sessions during exam weeks. Fairness across sections of multi-section courses requires that all TAs for a course have similar practices or at least arrange a structure for the course overall in which no sections are selectively advantaged or disadvantaged. This is an area where communication between TAs, and between TAs and instructor, or instructors, is needed.

If you feel that you have a work-related issue which will be difficult to resolve with your instructor, you may consult with the Graduate Vice Chair, or with the Teaching Assistant Faculty Adviser. In addition, if you wish to consult with someone anonymously, or "off the record", consider speaking with the department ombudsperson, currently Inwon Kim. This pathway is appropriate especially when an issue has taken on a personal character.

In the unfortunate case where the process fails, there is also available an official UCLA-wide formal grievance procedure which is described in Section 8.

Time Management and Homework Grading. For upper-division courses, TAs grade homework because normally there are no readers. Also, upper division courses may require more time to prepare for discussion. This latter component depends very much on the TA and the strength of their background. You may manage your time by varying the number of hours you put into the grading of homework and instructors are advised to be flexible on this point. Most TAs should be able to grade 2-3 hours per week. On the other hand, the Department recognizes that more grading than this amount can be felt to be highly burdensome. Upper division courses may well

exceed the 7 hours per week average somewhat but would normally stay under the 8.5 hour bound with this amount of grading. Be frank with your instructor about the grading.

4.4 Enrollment and Registration

TAs must be registered and enrolled graduate students at UCLA. **All first-time TAs must enroll** in 2 units of Math 495 (TA Training Course) in the Fall, unless they have passed Math 495 previously.

All TAs are required to take at least 12.0 units. Half-time TAs must sign up for two units, full time TAs must sign up for four units, of Math 375 (Teaching Apprentice Practicum). TAs sign up for Math 375 with the instructor of the course/s for which you are TAing.

4.5 You and the Instructor

You are not expected to attend the instructor's lectures on a regular basis unless you need to in order to master the material, or if the instructor explicitly requests that you attend. However new TAs, i.e., those in their first three quarters of employment are required to make arrangements with instructors to attend at least two lectures per quarter. The purpose is for you to see how the material is taught, what is emphasized etc. and to help you envision your role in the course as a valuable complement to the lectures, as well as an independent component.

Inform yourself about the homework assignments well in advance. It is imperative to work out the solutions to the problems before your discussion section. It is good to imagine the possible pitfalls in solving the problems as well. This can help greatly in answering questions and can make a real difference in perceived effectiveness.

Instructors have a responsibility to monitor the performance of their TAs. The rule is that they should observe, by arrangement with you, two sessions for at least 25 minutes each time. You may want to invite your instructor to do so. In each class you TA, you, the instructor and the other TAs are a team. Observation and feedback may help you in your teaching, and it enables you to ask for a letter of reference on your teaching later when you need one.

4.6 Absences

Unexcused absences are not permitted and may be cause for termination of your TAship. In case of a sudden illness, you must call **Martha Contreras (310-825-4971)** or email **martha@math.ucla.edu** as soon as possible. You must also inform the course instructor.

Planned Absences: Conference, Workshop, Jury Duty . . . In the (rare) event that you cannot teach or perform your duties as TA, including not being able to hold your office hour or your SMC hour because of academic reasons such as attending a conference or workshop, or because of jury duty, you must turn in the TA Absence Approval Form, filled out front and back, well ahead of the time of your proposed absence. This form is obtainable from Student Services in MS 6356 and is also attached on page **21** of this manual. Expect to provide necessary paperwork that documents your reason for the proposed absence.

4.7 Success

Continued service as a TA is dependent upon conscientious teaching and satisfactory academic performance.

The quality of your work as a Teaching Assistant, your attitude toward this important teaching function, and your cooperation are all important parts of your record as a graduate student. These factors are included in all letters of recommendation (e.g. for fellowships and employment) issued by the department. What your students learn in the course depends significantly on your attitude and ability to help them learn, particularly for the great majority of students who are neither at the top nor the bottom.

Each year the department nominates several teaching assistants for the Mathematics Department Distinguished Teaching Award. The selection is based on student and faculty evaluations. Nominees also receive Department recognition.

5. Additional Details

5.1 TA Assignments

Normally, you will receive your assignment to specific courses a month before classes begin. If you have questions about your assignment, first see Leticia Dominguez. Courses are assigned according to recorded preferences, department need, and TA competence in the field. Staff make a strong effort to respect preferences but the instructional needs of the program are decisive in some cases.

In suspension during pandemic:

5.2 Student Math Center (SMC)

The SMC is located in MS 3974 and offers group study and tutorials for lower division mathematics courses led by TAs. SMC starts working on the third day of instruction and is open through tenth week of classes. For hours which vary from quarter to quarter, see <http://www.math.ucla.edu/ugrad/smc>. Depending on your assignment you will spend some time there (see table 1 on page 3). You sign up for your SMC hour at the beginning of the quarter, in MS 6356. The SMC can be somewhat stressful, but you should keep a few things in mind:

- *The SMC gets busy, especially during midterms; while you should try to help as many people as possible, don't sweat it if you can't help everyone.*
- *If several people are waiting for your help, try to get one group started working on a problem, and then rotate through the rest of the waiting students. Also, getting students in the same class working together can alleviate some of your burden.*
- *Don't just answer questions from students in your section. Your SMC hour is not an extension of your office hours.*
- *You are not required to help students from any upper division courses (i.e. courses numbered 100 or more). You're welcome to help them if you have time and no lower division students are present.*

5.3 Software and Hardware for your Job

- **Offices and Mailboxes:** TAs are assigned offices and mailboxes if available. The Graduate Officer makes and distributes these assignments. The mailroom is locked and only those with keys are permitted in it (that is faculty, staff, graduate students, and readers). **Thus: Do not let anyone into the mailroom.**
- **Room Requests:** If you wish to reserve a room for large office hours or a review session, any staff member in MS 6356 can help you. **For weekend requests please submit by Wednesday at 10am.**
- **Copying Services:** If you wish to have copies made of class materials, you must email your request to copy@math.ucla.edu at least 2-3 days in advance. Please included the following information:

Name	Date Needed
Number of Pages:	Number of Copies
Stapled: yes/no	Print one-sided or two-sided
- **Textbooks:** The department will lend you a copy of the textbook for the course you are selected to TA for or during the given quarter. Any staff member in MS 6356 can provide you with the textbook, just let them know which course/s you are TAing. As the number of textbooks available are limited, therefore borrowing the book for the department means that you will abide by the following:
 - The textbook must be returned by the end of the quarter
 - If the textbook is damaged or lost you will be responsible for replacing the textbook
 - It is recommended you pick-up the book the week before the quarter
 - Do NOT leave the textbook in the mailroom. It will become your responsibility if it goes missing.

6. Teaching

Getting off to a good start can save you a lot of trouble later on in the course.

6.1 Before Day One

- After receiving your assignment, get the textbook and/or digital access to it from a staff member in the Student Services Office **MS 6356**. (Please note, assignments can be changed, even in the first week of classes.)
- Contact the instructor in charge of the course at least two weeks before the start of the course. This may sometimes be difficult, as some faculty member's return to campus only shortly before the quarter starts. You are off to a good start with the instructor if you make the first move.
- Get some chalk and/or white board markers (from **MS 6356**).
- Find the classroom before the first day of class. Not all classes are held in the Math Sciences building and it can take up to 10 minutes to walk to North Campus.
- Meet with the instructor and ask him/her the following questions:
 - Are there any handouts?
 - Is there a homework assignment? When will it be assign?
 - How will the students (and you) find out what the assignment is?
 - When will it be due?
 - Who will collect and return it?
 - What is the late homework policy?
 - When are the midterms?

- Will there be quizzes in section?
- How will the grades be calculated?
- Assigned problems: Should you do any they ask for, some but not all, similar problems, give hints, and/or do problems after homework has been handed in?
- Anything particular for the first class?
- How and how often will you and instructor communicate during the quarter? For example, be very clear on how often your instructor expects you to check your email and how soon to respond to his/hers.

Instructors vary on how formal they are about meeting with their TAs at the beginning of the quarter or during the term. If you feel comfortable with the course, this is fine, but don't be afraid to ask to meet with them to discuss any matter if you feel the need.

- Write notes for yourself on what to say in your first class.
- Review the textbook.
- Decide on your office hours, fill out the door card you should receive in your mailbox shortly before the quarter starts, and post it outside your office.

6.2 Day One

Day one of the Quarter is too important to throw away.

If all we do is call the roll and dismiss the class, what message are we sending? "I didn't really think about this class until now," maybe, or, "You don't need to be any more serious about the material than I have been just now."

- Take the following with you to class:
 - a plan of what you want to say
 - chalk/markers
 - textbook
 - enrollment list or photo roster
 - syllabus and course handout
 - all the information you have obtained from the instructor
- Get there early. It's less intimidating to watch the students come in one by one than to walk into a full classroom. Try to project an image of being friendly, yet in control.
- Write the following on one corner of the board and leave it there for the entire period:
 - your name
 - email and your webpage
 - your office number
 - office hours (it's okay if these are still tentative)
 - class number and name
 - class website address

You may want to write your office hours on the board at each meeting for the first few weeks to avoid having to answer the same question over and over.

- Explain the mechanics of the course; homework, exam grading, how to label homework so that it does not get lost - name on every sheet, TA's name, lecture and section on first page.

- Ask for questions on the mechanics.
- Explain a little about yourself – a Ph.D., pure or applied math, where you are from, and so forth.
- Ask students about themselves, how many are new to UCLA, what is their major, why are they taking the course? You shouldn't necessarily go around the class and have them introduce themselves, but you should try to get the students talking, and make the class atmosphere seem friendly.
- Ask students to think of three reasons why/how an undergraduate may benefit from taking a math course.
- Give a "pep" talk:
 - Stress to the students that you are not there simply to do their homework. More importantly, explain to them why this is beneficial to them. Explain that in math, just as when playing the piano for example, they need to "practice". Make sure they understand the need to look at their homework before coming to class.
 - Explain the futility of copying homework. In upper division courses especially, explain the benefits of forming a "study group," and explain the difference between "working together" and everyone copying one person's solution.
 - Encourage them to go to your office hours; this is an excellent way for them to get one-on-one help and to ask questions they were too embarrassed to ask in class.
 - Encourage them to ask questions in class.
 - Explain the course, its application, importance, why you like it, what the main points are.
- Explain what you intend to do in section, and what the structure of the class will be. Let them know if there will be quizzes, and how you intend to help them with their homework.
- If the instructor has asked you to do something, do it.

6.3 After Day One | General Teaching Tips

Learning how to teach is like learning how to do anything else. You know a good teacher when you see one but it takes practice before you become good at it yourself. You are bound to make some mistakes when you start but if you try to be aware of them and correct them as you notice them, it won't be long before you improve. The greatest teachers are those who continually work to improve their teaching.

Preparation The importance of preparing for class cannot be overemphasized. It is an integral part of teaching. Without a plan in mind of where you are going, how do you really know when or if you get there? Think about the following: You want to go on a trip. You could just get into our car and start driving. Assume you have enough resources (i.e. time, money, gas and the like), you might, based on the laws of probability, get to your destination if you continued to drive long enough. But wouldn't it be easier to take out a map, figure out where you want to go and then plan the best way to get there?

- Think about things you disliked your instructors doing and try not to do them ... and vice versa.
- Know which sections were covered by the instructor, and prepare those to make sure you know what is going on.
- Do the problems (i.e. work them out completely) you're likely to do in section, but anticipate that students may want help on other problems as well.
- Just knowing how to do a problem is not enough to prepare how to present a solution in a way that benefits the students most.
- Attend at least three lectures in particular if you are TAing for a class you never took before.
- Work out any special explanations you think they will need.
- Think about what you will do if there are no questions, or too many questions.
- Pick a few problems that highlight the ideas of the week.
- Always come equipped with more problems than you think you can do, in case you do have time left.

In the Classroom When you teach a discussion section in a large lecture course, your primary responsibilities are to clarify and give examples of materials already presented in the lecture. Most of your time will be divided up between working examples to illustrate the material in lecture, answering questions on the lectures and homework, and sending students to the board to work problems.

Avoid doing the homework for your students. Doing the homework is the students' opportunity to learn as well as their part to get credit and a deserved grade for the class. Nevertheless, most likely you will be asked "Can you do problem 4 on page 11 please?" Be prepared to offer a similar problem, hopefully more than just changing some numbers around. Refer to examples in the book which are like problem n. If it is a rather unique and more difficult problem, be prepared to either give them a hint on how to get started, or give a 'big picture' outline, where they still need to fill in the details (zoom into the big picture) in such a way, that they are still asked to understand the problem, rather than just copying a pattern.

You should neither hope for covering nor prepare to present brand new material in your sections. In first place, one discussion section usually covers material from three lectures, and most of the time your students will be more confused than you think and hope, and hence most of the time you will be challenged to choose what is most important to present, because you won't have enough time. In addition, the danger of presenting new material either incorrectly or in a confusing manner has far reaching consequences for the students.

Write as neatly as you can, stop every so often and wait until everyone has caught up with you. (Hint: at the end of lecture, before you erase the board, go to the back of the room, and look at your creation on the chalkboard!) During first section or two stop intermittently and ask your students if they can read what you just wrote. Some basic communication hints:

- Do not write on the bottom of the blackboard, as someone inevitably can't see it. At the same time, do not try to fill every conceivable corner or side that may still be black.
- Do not talk to the blackboard, the wall, the floor, or the window.
- Do divide the board into pages, and number the questions you write on the board.

- Speak slowly and clearly. Don't be afraid to repeat yourself if you think the students didn't understand what you said.
- Make eye contact with the students.
- Point out the central idea and any tricky points.
- Leave out routine calculations. You only have a limited amount of time in your section each week, and it's just silly to waste this on something the students can do by themselves.
- Explain your thought process, reference all theorems and make the relevant definitions. Remember, you're not just trying to show the students how to solve this problem; you're trying to teach them how to solve problems themselves. Make comments about things you found confusing when you were first learning the material, if you feel it will help.
- If you see a lot of worried faces, go over the question again. It's better to actually help the students understand two or three questions than to whiz through five questions and leave the students as confused as they were at the start.
- If there is a second way of solving the problem, at least mention it.
- Encourage questions.

Try to get students to contribute to the class by asking them questions:

- Ask more open ones, e.g. "How might we get started on this?"
- Treat all answers with respect, but also be clear on handling and correcting incorrect answers.
- Give your students time to answer before you give up and answer the question yourself. This can be painful, especially the first day of the quarter, but it's well worth it if you can get your students to feel comfortable contributing in class. If it's been two full minutes, and no one seems to have any ideas, try giving them small nudges in the right direction.

Know and *admit* your limits. Never pretend you know the answer if you are not sure you do, to stumble through vague, and possibly incorrect answers. Leaving the students with a comment that you will get back to the question, once you are sure about the answer is far better than having to correct false information. See also **6.4 Trouble**.

If it makes you feel more comfortable, learn the names of your students. People have varying opinions on this matter, so go with what works for you. However, if you have certain students who are especially vocal or trouble-making, it pays to know their names.

Office hours

- Be there!
- Office hours are a big help to you: they give you feedback and help you to get to know your students. Take advantage of the chance to see what is and is not working in section.
- Make the students feel welcome. Don't have your friends hang out in your office during office hours. Even if you're talking about something interesting, stop and talk to your students when they come in. During office hours, they're your first priority.

- Divide your time as equally as possible between students. If you have one or two students who come in with long lists of questions, take turns asking for one question from each student.
- Have your office hours at a different time from the class lecture and from your officemates. If you are particularly popular you can ask Student Services for a seminar room.
- Let them tell you what they need: "What would you like to talk about?" Take all questions seriously.
- Beyond office hours: you are welcome to go above and beyond with office hours. If you have students who can't make it, you can schedule extra office hours for them. Remember, though, that you're not required to do so. Discourage students from "just dropping in" in general. Don't give out your cell phone number.

6.4 Trouble

- Control: If the students are talking while you talk, stop talking and wait. This will usually do the trick. If it continues, you could try standing by the students who are noisy until they stop. Another tactic is to point at the student who is talking, and say, "Do you have a question?" In extreme cases, pull the student aside after class and talk to them.
- Mistakes: correct them and make sure everyone fixes them in their notes. Don't feel too bad about it - it happens to everyone, but make sure to give everybody a chance to fix it! Depending on the severity of the mistake, you may even talk to the instructor, that he addresses the problem in class.
- Getting confused or not being able to solve the problem: the students will usually help you out, but if you get really stuck, apologize and tell them you will work it out and go over it the following week, distribute a handout or post it your office door. E-mailing the students with a solution is usually the best plan.
- If a student comes to you and asks about whether or not they should drop the course, send them to the instructor. It is not your place to offer this kind of advice.
- If you have a know-it-all student, try to get them to give the other students a chance to talk without embarrassing them. You can play it off and say something like, "Well, I know you know the answer, but let's give someone else a chance." If need be, pull them aside after class, and tell them that you're happy that they're excited about the course, but that they need to give the other students a chance to talk as well.
- Sometimes, people will continue to ask for clarification, no matter how much you offer. Usually, these students aren't trying to slow class down, they just genuinely don't understand. If you feel like most of the class understands something, but one or two students keep asking questions, offer to talk to anyone still interested after class, or in office hours, and keep moving. Similarly, don't spend too much time talking about advanced topics with two or three excited students, even if you're excited about the topic. Remember, your goal in class is to try to help as many people as possible understand material. In this case, the needs of the many outweigh the needs of the few.

6.5 Readers

- You may want to check the readers' grading from time to time to see if they know what they are doing, otherwise you are going to spend a lot of time sending homework (or quizzes) back to the reader to be regraded. If in doubt about the quality of the reader's performance, talk to the instructor about it.

- Some readers take a long time in getting the homework back, if this gets to be a problem, talk to the instructor.
- In general, students don't know that there is a reader. They probably think you grade their homework; you should explain how the process works on the first day, so that the students don't hold you responsible for a reader that's slow to grade their work. However, do not tell students the name of the reader, or to just talk to the reader directly. They can submit homework for regrades through you.

6.6 Exams

Here are some items you should discuss with the instructor to minimize the risk of misunderstanding.

Proctoring: Find out when and where the exam will be held from the instructor. Work the exam in advance carefully to check for mistakes and ambiguities. Students will ask you lots of questions, most of which should be answered as “this is part of the problem”. If you think the questions deserve a detailed answer go to the instructor. Do not give answers that put a student at advantage over the others!

Cheating: See 7.1 for details. For new TAs: there will be a joint presentation on “Academic Integrity” in Math 495 meetings. Attendance of this presentation is required by the university.

Grading: Before grading the problem, do the problem and decide what components of learning it measures and how to split the points. In some cases, your instructor may provide you with a “rubric” for grading. That is convenient but it is good training to do it yourself. Record any partial credit decisions (i.e. point penalties) on a problem, with their reasons, and make every effort to apply these rules consistently for all students, so you have a solid position in case students come to you to ask whether they deserved more points. Keep in mind though, that all regrades need to be approved by the instructor, who is the only one who can make a change in the exam score. If you do change your grading of a problem, email the instructor about it as soon as you can. If you have any questions about regrading policy, ask the instructor. Different instructors have different policies. If possible, try not to look at the name of the paper as you grade it. Place the papers face down and open them from the back, if necessary. This is especially important if you know your students by name - it's just too hard to be impartial otherwise. Don't spend an endless amount of time agonizing over a single paper. For new TAs: you will get more details on this in the presentation on meeting and grading practice in one of the weekly Math 495 meetings.

Extra Office Hours: You may be asked by students to hold extra office hours or a review session, before an exam. Students appreciate these extra efforts very much but it is not an obligation.

Leftover Exams: After the quarter is over, turn any students' work related to the class over to the instructor. In particular, this applies to students' homework and exams which were not picked up.

6.7 Program in Computing (PIC)

The PIC website (www.pic.ucla.edu) states among other things that the mission of PIC is not a “trade school mission, but a mission undertaken out of recognition that students need to have a good set of computational skills to be productive participants in the educational and research activities at UCLA”.

To you this means that you will be teaching a diverse crowd of students (Applied Math, Psychology, Biology, Physics, etc.) how to use a programming language to accomplish tasks on a computer. In the introductory course some of the students are still adjusting to double-clicking a mouse, so you should adjust your teaching curve accordingly. Do not neglect any of the details such as where to find the program on the computer, how to set up a new project, where to click to make it compile, etc. The students are also allowed to work and submit the assignments from home; instruct them how to do it so that you avoid a crowded lab. The instructor of the course can bring you up to date on these aspects.

The course is generally structured with weekly programming projects submitted electronically. During discussion you should practice the concepts necessary to complete the assignment.

Your office hours must be held in the PIC lab (find it on www.pic.ucla.edu/how-to-use-the-debugger/) where you will help students by offering hints and debugging their program. This is the unpleasant part; since students may come to view you as their human debugger don't despair! In the beginning you should offer more help so that they are not bogged down by typos and misplaced semi-colons. As the course progresses your role shifts to identifying which part of the program doesn't work and then saying now that we found the problem, I will let you debug it."

6.8 Feedback

Both students and faculty evaluate you at the end of every quarter. Students evaluate you on a numerical scale and also have the opportunity to provide written comments. The instructor provides written comments. These evaluations are kept in your permanent employment record. The Graduate Vice Chair reviews them to determine whether you are maintaining a responsible attitude toward teaching. The Graduate Vice Chair also uses these evaluations to write teaching recommendation letters if requested.

An obvious form of gaining feedback is through observing your students. Notice the way your students respond in class. Do they have a glazed look in their eyes when you are talking? Do they groan when you erase the board?

Ask your students for comments in office hours. Ask leading questions, such as “Do I stand in front of my writing?”, “Is my lecturing clear?”

Have other TAs or faculty members come into your class to observe you. Observe other TAs and faculty members. At the end of the quarter, students will be given the opportunity to evaluate you online. Explain that while these are reviewed by people in the department, the comments are mostly for your benefit in improving your teaching. Point out that they should save comments about lecture, exams, the book, etc. for the evaluation the instructor passes out.

7. Code of Conduct

7.1 Academic Integrity

As a graduate student and TA at UCLA you fall into two categories regarding academic integrity. You are a student, and you are a teacher. For new TAs, in Math 495 there will be a 50-minute session on Academic Integrity first week of classes. Some of the material you will be receiving is also on the web.

The Student Guide to Academic Integrity published by the Office of the Dean of Students:
<http://www.deanofstudents.ucla.edu/Academic-Integrity> and the Faculty

Teaching Assistant Guide to Academic Integrity published by the Office of the Dean of Students:

<http://www.deanofstudents.ucla.edu/Portals/16/Documents/facultyandtaguidetrifold.pdf>

The main point here is that suspected cheating must be reported to your instructor who, in turn, will assess with you whether the evidence is strong enough to merit a report to the Office of the Dean of Students. This is a straightforward but serious and should not be done unless there is a strong case. In any case where clear evidence of cheating exists, a report is obligatory.

7.2 Sexual Harassment

Sexual harassment, as defined in the University of California Policy Applying to Campus Activities, Organizations, and Students, reads in part:

Sexual harassment is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, when submission to or rejection of this conduct explicitly or implicitly affects a person's employment or education, unreasonably interferes with a person's work or educational performance, or creates an intimidating, hostile or offensive working or learning environment. In the interest of preventing sexual harassment, the University will respond to reports of any such conduct.

Please refer to the Policy on Sexual Harassment and Complaint Resolution Procedures for the entire definition. The Policy on Sexual Harassment and Complaint Resolution Procedures is incorporated into the Policy on Student Conduct and Discipline which can be found under <http://www.deanofstudents.ucla.edu/Student-Conduct-Code>

All TAs are required to complete UC mandated Sexual Harassment training.

7.3 Ethics and Professionalism

Being a TA will most likely be your first step into professional development. It will give you financial support, a chance to learn while teaching, the opportunity to interact with faculty as well as with students. However, you will also have to learn what is expected of you, what your obligations and limitations are in order to act as a professional. Here are a few aspects of professionalism you need to keep in mind.

- **Integrity** - We will conduct ourselves with integrity in our dealings with and on behalf of the University.
- **Excellence** - We will conscientiously strive for excellence in our work.
- **Accountability** - We will be accountable as individuals and as members of this community for our ethical conduct and for compliance with applicable laws and University policies and directives.
- **Respect** - We will respect the rights and dignity of others.

In more detail: The normal exchanges that go on in the classroom (and in one-on-one meetings) can evoke many different responses from teachers. But it is extremely important to realize that teachers cannot interact with students in the same way they would interact with friends or colleagues in other settings. The teacher student relationship is professional and formal, not (primarily) personal and informal. It exists in an environment that is purposefully diverse. Students of all backgrounds and circumstances have a right to be treated with respect and to be evaluated in accordance with the prevailing norms of your discipline. This means that teachers must be both dedicated to their students and professionally detached sufficiently detached, anyway, to be able to carry out one's responsibilities in a manner that is consistent with the highest standards of professional ethics. Respecting students means among other things that teachers must be extremely mindful to avoid any conduct or comments that might be interpreted as disrespectful or even outright hostile. The classroom is no place for certain forms of sarcasm, incautious statements, or playful comments that are inconsistent with your position of authority and your professional responsibilities. One of the more egregious mistakes in this regard involves behavior or commentaries that are reasonably viewed as forms of sexual harassment. Obviously, purposeful harassment is inexcusable, but also be careful to consider whether comments that you believe to be innocent (such as compliments on someone's appearance) are inconsistent with your position. You encounter these students because you have a job to do. Focus your demeanor on that goal.

7.4 Battling the "Friendship" Temptation

Finally, and relatedly, it is tempting for teaching assistants to try to win students over by making friends (or acting as a friend). In part this is due to the natural inclination of teachers to want to be liked by students, and being friendly is an obvious element of that strategy. The temptation also arises in cases where teaching assistants feel as though they are part of the same peer group as undergraduates, close in age; sharing similar interests; etc. It is not uncommon to think that, in other settings, many of one's students could instead be one's friends.

It should be clear by now how important it is to maintain a sharp distinction between being a friendly professional and treating students like your friend. The teacher-student relationship is, inevitably, a structure of authority, and includes an evaluative component that absolutely requires a teacher to be able to offer fair, objective assessments of student work. One's position as a teaching assistant is dramatically undermined when one sacrifices professional detachment for more personal and informal relationships; and students quickly lose respect for instructors who seem more interested in making friends than doing their jobs. Obviously, the most egregious and unforgivable case of this mistake would be the temptation to pursue more romantic relationships. The converse of the temptation to treat some students as friends is the situation where a teaching assistant develops a personal dislike for a particular student. Needless to say, the demand that

one maintains some professional detachment in such circumstances is the same as in the previous situations.

The bottom line: being a teaching assistant can be an extraordinarily satisfying part of one's academic training, but it is also a job, and you must treat it as such.

8. Teaching Assistant Formal Grievance Procedures

The procedures were developed by the Judicial Review Committee in consultation with the Dean/Vice Chancellor, Graduate Programs, the Committees on Undergraduate Courses and Curricula and Educational Policy, and the Graduate Council. These grievance channels are to be used for TA complaints for which there are no other established procedures such as, but not limited to, assigned workloads and evaluations. They may also be used by TAs to satisfy the Informal Consultation and Formal Investigation Steps of Campus Appeal Procedure 140.

Informal Discussion: The TA should make every effort to resolve the matter through discussion with the instructor of the course, and the steps outlined above. If these forms of negotiation do not result in an acceptable agreement, the following steps shall be taken.

Request for Mediation

- The TA shall prepare and submit a written grievance to the Department Chair, or to the appropriate Dean if the Department's Activity Chair is party to the dispute, or if there is no Department Chair or Acting Chair. A copy of the grievance shall be sent to the instructor. (Note: the appropriate Dean is that party to whom the Chair reports).
- The instructor may submit a written response to the Chair (or appropriate Dean), before the meeting with the Chair (or appropriate Dean) occurs but in no event later than three (3) business days after receipt of a copy of the grievance.

Meeting The Department Chair shall schedule an ad hoc meeting to be held no sooner than three (3) business days and no later than five (5) business days after receipt of the grievance. (Note: either time limit may be waived for good reason, including the unavailability of one or more participants or the Chair's need for more information.)

The meeting shall include:

- the TA
- the course instructor, and
- the Department Chair (or appropriate Dean)
- At the request of the TA, a graduate student with current or prior TA experience in that department, or a representative of the Ombud's office, may also attend. The choice of the graduate student requested shall have the concurrence of the Department Chair.
- At the request of the course instructor, a faculty member in that department or a representative of the Ombud's office may also attend. The choice of the faculty member requested shall have the concurrence of the Department Chair.

Notification of Decision: The Department Chair shall prepare a written statement of the decision and make the statement available to the TA and course instructor within three (3) business days of the meeting.

Disputes Regarding Workload For disputes regarding TA workload:

- If the Department Chair decides that the workload extends beyond the TA's normal responsibility (e.g. 50% time is the equivalent of 20 hours/week as defined in the Apprentice Personnel Manual, pp. 10-13), then:
 - The course instructor must make every effort to alleviate these conditions as soon as possible and prior to the end of the quarter.
 - In the case of prospective assignments, changes can be made in the required assignments in an effort to adjust the TAs workload to the appropriate level.
 - In the event that assignments have already been started and/or completed by students in the class, the instructor will evenly split the quantity of work between him/herself and the TA(s) of the course.
- If the Department Chair decides the workload does not extend beyond the TA's normal responsibilities, then the TA is to continue in his/her teaching responsibilities.

Other Disputes In other disputes, the same process is recommended for discussion and resolution. The Department Chair shall make a decision and provide an appropriate remedy.

Appeals In the event that the TA disagrees with the Chair's or Dean's decision, the TA may file an appeal under the Campus Appeal Procedure 140. If the instructor disagrees with a Chair's or Dean's decision and the instructor is not a person to whom Rule 140 applies, the instructor may appeal to the Dean of the Graduate Division. In either case the parties shall comply with the decision until the appeal is decided.

For more information on this process, see the Graduate Advisor or the current TA Consultants. For confidential advice outside the Department, call the Ombud's office at 310-825-7627.

TA Absence Approval Form

Submit this form with both sides completed
to the student services office, MS 6356, in advance of your absence

Name: _____

Email: _____

Dates of proposed absence: _____

Course and sections: _____

Course instructor: _____

Course and sections: _____

Course instructor: _____

Reason for absence: _____

Graduate office approval

Date

TA Absence Substitution Approval Form

The following people have agreed to substitute for me at the noted times:
Include all sections, with room locations, and both SMC and office hours

Mon	Tue	Wed	Thur	Fri

 Student signature Date

Instructor signature
Date

Date

Instructor signature