

# Handbook for Teaching Assistants

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# Part I: Teaching

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# The Responsibility of a Teacher

As teachers of mathematics. we great assume а responsibility. We may significantly alter the mathematical attitudes or competence of our students, in either a positive or negative manner. We will be dealing with students in many fields, and our teaching attitudes and abilities are a serious matter. Future engineers, biologists, economists, physicists, chemists and others (in particular, mathematicians) need to understand and apply mathematics to their disciplines. This involves much more than simply solving standard problems with standard techniques. It means they must learn to think mathematically. For example, a biologist needs to know that derivatives are rates of change, not just how to compute them.

It is important that we teach as well as we possibly can. This calls for a deeper understanding of the subject matter than simply being able to solve problems correctly. It calls for an understanding of the nature of students' difficulties, actual and potential, and the ability to encourage students to express their difficulties without shyness or fear of ridicule. We must, in addition, find creative ways to increase the students' understanding. Simple repetition, for example, may not be effective. We must find alternative questions and explanations which lead the students to greater insight.

One might feel that the responsibility of being both a Teaching Assistant and a graduate student is too great. However, Teaching Assistants have been successfully involved in graduate education for many years, and the effort directed toward effective teaching has many rewards. First of all, teaching becomes easier with time. By consciously employing effective techniques in our teaching, we make these techniques part of our natural repertoire. This is not to say that our teaching capabilities reach a maximum level, for there is always room for improvement. It simply means that the effort required to teach effectively is diminished, while the enjoyment comes in many forms: respect, grateful evaluations from students, the experience of working with other people, and the pride in knowing that one has contributed to the enlightenment of other people. In addition, the need to explain a particular topic often leads to a substantial clarification of our own understanding of the subject.

We must not feel that the teaching we do is merely a formality whereby we become entitled to a subsistence wage, and that the only important activity for us is research. This view contributes to a poor attitude, and our teaching suffers as a result. Our years as graduate students are a period of apprenticeship in a craft, and this craft comprises both research and teaching. Even those graduate students going into industrial or government work can expect to spend a fair amount of time teaching their colleagues as well as learning from them. Clear explanations of your work are necessary for any complex project.

# **Teaching Assistant Duties**

Your Teaching Assistant duties each quarter will normally consist of preparing for and meeting discussion sections Math Lab, holding office hours, and grading. Also, you may be assigned tasks to perform during the pre-instructional week. The duties of a full-time Teaching Assistant normally include four to six discussion sections and three office hours per week.

You will have several responsibilities in addition to those of preparing for and meeting the sections Math Lab and holding office hours. You will ordinarily be expected to proctor and grade a portion of all exams. You may be expected to give review sessions before examinations. You may be asked to attend some of the course lectures. There may be other tasks, such as assisting with the grading of quizzes, group projects, etc.

Sounds complicated and like a lot of work? It can be, and it is necessary that you be organized and plan ahead. Toward this end, it is extremely important that you meet with the instructor(s) whom you will be assisting at the beginning of the quarter, preferably before formal instruction begins, to find out exactly what is expected of you. *Further, it is expected that you will meet weekly with the instructor throughout the quarter.* 

Since you will also be expected to maintain a high level of achievement in your own course work, there are limits to what will be asked of you. For instance, you will not normally be expected to prepare exams (but you may be asked to proofread them). You will not be required to give class lectures. If you begin to feel that your TA duties are keeping you from performing to the best of your abilities, either in your TA responsibilities or your course work, see the Math 101 Instructor, or the one of the Vice Chairs. They will be happy to try to help you resolve any problems.

#### **Teaching Assistant Workload**

As a Teaching Assistant at UCSB, you are represented by the United Auto Workers union. The math department complies with the specifications of the UAW contract, which has been approved by both the university and the UAW. One article of this contract which deserves particular attention refers to TA workload.

Article 30

- a) A TA with 50% appointment shall not be assigned a workload of more than 220 hours per quarter. This standard shall apply proportionately to other percent appointments. b) 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. The number of hours worked in excess of twenty (20) hours per week may not total more than 50 hours per quarter.
- 2. TAs should initiate discussions with their supervisor as soon as they anticipate any workload issues that would result in a violation of this Article.

The complete United Auto Workers employee contract can be found on the internet at the following web address: http://atyourservice.ucop.edu/employees/policies\_employee\_la bor\_relations/ collective\_bargaining\_units/academicstudentemployees\_bx/agre ement.html

#### Pre-Instructional Week Duties

During the fall quarter pre-instructional week(s) there will be required meetings for all new TAs. This is part of the required 501 course for new TAs, and is very intensive. Also during this week there will be campus-wide TA workshops which are required for all new TAs (experienced TAs are also welcome).

# Preparation for a Discussion Section

To prepare effectively for a section, you must be aware of the subject material covered in the class lectures. One way to ensure this knowledge is to attend the lecture. Alternatively, acquire a copy of the course syllabus and lecture notes, and meet regularly with the course instructor (which you should request if the instructor fails to do so). The instructor may want you to discuss certain topics that may have been treated quickly in the regular lecture or to clarify certain ideas. You should be able to completely work all the previously assigned exercises for the course and give clear concise explanations of the related concepts. Minimally, this involves carefully reading those parts of the textbook related to the material and, if necessary, writing complete solutions to the exercises. In addition, you could prepare a short summary of the main ideas of the course which the students have encountered since your last meeting with them. This summary could be presented at the beginning of each section. Further, you could develop extra examples to highlight and illuminate the lectures and textbook. (By the way, always bring your textbook to section.) In short, proper preparation to lead a section is an absolute necessity for effective teaching. Such preparation will give you more confidence in the classroom, and earn you greater respect from your students and your teaching colleagues.

# First Day in Discussion Section

When you walk into the first meeting of a section, you should be as aware as possible of how the course will be conducted. This means knowing precisely which topics will be covered in the course, the prerequisites, the homework and grading procedures, and when the course instructor and you will be available to help students. The best way to have all this information in hand is to make an appointment with the course instructor a few days *before* classes begin. Obtain a course syllabus and familiarize yourself with it. If possible, attend the first lecture of the course so you will know the students' viewpoint on how the course will be run. *Above all, remember it is your responsibility to contact the course instructor and to be aware of course procedures.* 

Begin the first section by introducing yourself and giving the name of the course. Write your name, office number, and office hours on the board. Remind the students of the instructor's office hours. It's a good idea to summarize briefly the procedures of the course and ask if there are any questions about it. Then, most importantly, you should discuss the reason for the section and how you intend to conduct it. Finally, you should attend the first section regardless of whether or not the first lecture has taken place. **Never** dismiss your section early. This conveys the impression that there is nothing important to do. You can always review difficult topics from the prerequisites or, later in the course, topics previously covered.

# Student-Teacher Rapport

What should a teacher-student relationship be? We suggest that you be natural, genuine, and honest, i.e. be yourself. Freely draw on your past experience with interpersonal relationships. Remember, students are people too. Treat them the way you always wanted to be treated as an undergraduate (but perhaps were not).

Accept the facts of the situation: you have more knowledge and experience than most students, you are being paid to help them, and they are in your section or office for that reason. Also, be sympathetic to their feelings, for they may feel self-conscious or nervous while asking for help. Do all you can to put them at ease. Don't be condescending, critical, or rude. Be sure to listen thoughtfully to what a student has to say and then respond to the key idea offered. Confirm the value of a student's question by responding to it directly.

Frequently you will have students coming to you who are not sure of exactly what it is they don't understand. When this occurs, it is often best to go back to the basic definitions and concepts and to work from there. Try to be very patient. Your students should feel free to ask the same question several times if your explanations are not clear to them. You may need to be creative, because an explanation which works well for one student may not work for another. Above all, remember that not all students' minds work in the same way.

Occasionally, students in your office or section may be angry or rude. Honest, responsive, and firm comments will usually keep the situation under control. If not, ask the student to leave and return another time.

#### Conducting the Section

The manner in which you conduct your section should be determined by your personality and the goals of the section itself. Although these goals may vary substantially from course to course, two general observations may be made. First, sections are not used to introduce new material. Rather, they are to give the student an opportunity to explore significant concepts a second time, under your guidance. Second, the small size of a section provides an opportunity for the student to have particular questions discussed and observations recognized. This role is particularly important in sections associated with large lectures, where you will serve as a liaison to inform the course instructor of the particular areas students are finding difficult.

The generally small class size of sections gives you the opportunity to use alternative classroom techniques to achieve the goal of active student participation in the learning process. For example, when responding to a student's question, you are not obliged to give a lecture. Utilize the resources of your class itself. Ask another student to respond to the question or ask the student to attempt to answer it. If students find this difficult, guide them to the solution with a series of guestions. Whatever method you use, do it with enthusiasm. Frequently ask your students questions, both to encourage them to think with you and to find out if they are following your argument. Another possibility is to have students work problems on the chalkboard or in small groups. Your course instructor will generally give guidance in this area. In any event, consider exploring alternative approaches to the traditional lecture method, and try to avoid mechanically responding to question after question of the form, "Can you do number five?"

Regardless of the approaches you choose, it is important that you consistently use good teaching techniques, or at least avoid bad ones such as the following.

#### 1. Insufficient "Wait-time"

For students to learn, they must be given time to think. So when you ask them questions, which should be done frequently, be sure to allow a sufficient "wait-time" before you solicit a response. Students think at different rates, so don't just wait until a few quick students respond. Instead you should try waiting as long as 10 seconds. You may find this uncomfortable at first, so silently count to 10, if necessary, to be sure you are allowing enough time.

#### 2. Rapid Reward

After you have allowed sufficient "wait-time" and a student does respond, don't immediately say "right" or "wrong" and

move on. This tends to curtail further student thinking. Allow time for your students to consider the answer and make their own conclusions. You might then ask them to explain why they agree or disagree with the original answer. Otherwise, they will depend on you to do all the thinking.

#### 3. Programmed Answer

Remember that the point of asking your class questions is to encourage them to think. So try not to ask questions which have the answer built into them, for example: "What is the derivative of a distance function? Is it velocity?" or "There are an infinite number of primes, aren't there?" Better questions might be: "What is the physical interpretation of the derivative of a distance function?" or "Are there an infinite number of primes? Why or why not?" Asking questions which require thoughtful answers will give you valuable insight as to the areas where your students are having difficulties.

#### 4. Non-specific Feedback Questions

"Does everyone understand?" or "Are there any questions" are examples of questions which usually fail to solicit feedback. kinds of questions (which are opposite to These the programmed answer type) are embarrassing for a student to answer because they call attention to their own ignorance. Unfortunately, the students who are most likely to respond are those who understand most of the material and need only to clear up a minor point. More appropriately, one should say things like, "The concept of a limit can be a difficult one to grasp. Let's try to summarize together some different ways to think of it" or "Let's think of some other examples to which this theorem applies." Also, you might ask, "What are your questions?" since this implies that you realize that they will have some.

#### 5. The Teacher's Ego-Stroking and Classroom Climate

It is important for students to feel psychologically "safe" to participate and to suggest answers to your questions — even

if they are incorrect. You should never criticize a student for offering the wrong answer, for you will inhibit the other students. Also, don't exhibit an air of superiority by using expressions like "obviously" or "It should be clear by now that ..."

You should realize (since nobody is perfect) that you will occasionally make mistakes or not know a solution to a problem. Be sure to take this in stride. Admit your shortcomings and clear up the situation during the next class meeting. Your students will respect you for doing so. *Naturally, the probability of your not knowing a solution or answer will be significantly reduced if you are adequately prepared.* 

#### 6. Enthusiasm in the Classroom

A TA who shows enthusiasm for the subject material (and the job in general) will benefit in many ways. Enthusiasm is contagious, and therefore your students will show more interest and participate more in class. This makes the TAs job easier, for no longer will you feel burdened with carrying on the discussion alone. Also, an enthusiastic teacher creates an informal classroom atmosphere which contributes to the learning process.

# Use of Chalkboard

There are certain ways to use a chalkboard which contribute greatly to the learning of mathematics. The most important point to remember is to *use the board extensively*. While solving a problem or discussing a proof, include all of the steps. For example, if you are solving a calculus problem which involves some algebraic manipulation, do not dismiss the algebra as trivial and simply omit it from your written solution. Although it may be trivial to you, it is unlikely that the students feel similarly. Also, be particularly careful not to switch variables in the middle of an argument and not to change the meaning of a variable several times. Use the space of the chalkboard wisely. Writing too small makes it difficult for the student to decipher the material, and writing too large will cause you to erase it too quickly. Try to leave your explanations on the board as long as possible, because most students will want to copy it exactly. Use the chalkboard in an *organized manner*. Students become frustrated when they have to patch together bits and pieces of a solution distributed randomly about the board. Try to refrain from using the bottom six inches of the board as students in the back of the room have a difficult time reading from it. Also, stand to the side of what you are writing. This way the students will be able to combine your written and verbal explanations into one cohesive unit. Besides, it will make note-taking easier for them and teaching easier for you.

Remember that generally what you write on the chalkboard is all that your students will put in their notes. Write the solution on the blackboard exactly as you would expect your students to. Your solutions will serve as their models. If you should write an incorrect statement on the blackboard, don't simply erase it or announce it is incorrect. Rather, draw a line through the incorrect statement and write the correct statement below it. Finally, as you proceed through the problem, it is often helpful to underline the important steps or ideas.

Make every effort to write legibly. There is no point in writing something that cannot be read.

#### Speaking Techniques

While in section, certain consciously practiced speaking techniques will help ensure your students' attention and interest. You must first of all address your audience. Speaking while facing the blackboard, reading your notes, or looking out the window will only serve to distract them. They might start looking out the window themselves, wondering what it is you find so interesting. While addressing your audience, try to move around and initiate eye contact with students in various quarters of the room. This behavior, coupled with distinct pronunciation and verbal emphasis on the important words and ideas, will relieve your students from the boring monotone delivery which we have all experienced.

You should adjust your verbal delivery to the situation at hand. With a large number of students or a room with poor acoustics, you might need to speak loudly. Otherwise, try not to blast your students with a booming voice. Also, you may need to adjust your speed of delivery to the complexity of the material and the learners' experience. While preparing for a section, keep this in mind and try to pick out the areas in which the students may have difficulties.

#### NOTE: If English is not your Native Language:

You are required to take the English Language Proficiency Exam (ELPE) upon your arrival at UCSB. Students delinquent in taking the ELPE may risk having registration blocked. If you do not pass the ELPE, you will be placed in the appropriate English as a Second Language (ESL) course(s). In addition to the ELPE, first-time TAs must pass the Teaching Assistant English Evaluation. This evaluation involves making a 5-10 minute presentation in front of a mathematics faculty representative, Graduate Division representative, and ESL faculty representative. If you do not pass the Teaching Assistant Evaluation, you will be given alternate duties.

It is important to realize that the course demands upon your English abilities are much greater than those of ordinary person-to-person conversation and that students often will blame you for their inability to understand the course material. As a consequence the development of your ability to communicate in English is an important component of your professional development and will require continued effort on your part. In addition to ordinary skills you will want to develop good speaking techniques. Write important phrases or technical words such as "derivative" or "integral" on the chalkboard the first several times you use them. That way the students will learn to associate your pronunciation of the word with the proper term. Also, never talk with your back to the students and if a student asks a question, move away from the chalkboard and toward the student. Finally, if you don't understand what a student is saying, be honest, and say "I do not understand." Experience has shown that TAs who have a genuine desire to communicate and help their students are understood quite well despite strong accents. Our own Chancellor, Henry Yang, was once in the same situation.

# **Devising Tests**

From time to time, you may be asked to write a quiz or other form of examination. Here are a few hints which we have found to be helpful. For each question included, you should ask yourself, "What specific ideas from the course do I want the student to demonstrate here?" To avoid writing a question which is unduly difficult to solve (at least for your students) always work out your solutions *completely* before making the final draft. Also, while making up the exam, keep in mind that someone (usually you) will have to grade it. So don't make up questions which involve lengthy computations which stray from the heart of the subject. Finally, remember your students will normally work much more slowly than you do. As a general rule, for a 50 minute test you should be able to thoroughly write all of the solutions in 20 minutes or less. In some cases, such as Math 34a, you should be able to do this in even less time.

#### Cheating

Even though students found cheating on an examination are subject to dismissal from the University, the practice is prevalent. To minimize this problem, ask your students to sit as far from one another as possible when taking tests.

If you notice one student copying from another during an

exam, walk over to the students and note their names (which may already be written on their exams). Don't create a fuss; but, if possible, quietly ask the alleged copier to move to another seat where cheating will not be as easily accomplished. After the exams have been passed in, it will be possible to compare the papers of the copier and the person copied from.

Writing two different exams and passing them out alternately is also a deterrent to cheating. Be sure to count the number of students taking the exam and compare that with the number of exams turned in. This will eliminate the problem of having students come to you claiming they took an exam, and you lost it. Occasionally, in a large lecture section, students will have a friend take the exam for them. This can be avoided by becoming familiar with the faces of your students and by asking them to put their signature and perm number on their examinations. Finally, if you do find a student cheating, attempt to obtain corroborating evidence and inform the instructor of the course, the Student Affairs Officer and the Undergraduate Vice Chair.

# Grading

As a TA, one of your responsibilities will be to help grade midterms and final exams. It is a sound practice to completely solve each problem yourself (in several different ways if possible) before you begin grading any exam. To make your grading consistent, grade one answer, or page, on all exams at the same time. It is often useful to presort the questions in order of apparent correctness of the response before grading to improve the consistency. If you are planning on giving "partial credit", preview the papers, to see what types of answers and mistakes you will be receiving. You should decide upon a specific plan to distribute the points, and record the plan prior to grading for future reference in case of student questions. *Discuss your grading plan in detail with the instructor before you start grading the tests.* If you are uncertain as to how to grade any examination response do not hesitate to discuss the particular paper with the instructor.

Students have been known to add answers to their exams after getting them back, and then seek a higher grade. To minimize this problem, make a habit of crossing out blank space on the answer sheet or otherwise marking the end or absence of a solution. Also, students should be advised that they may not contest their grade once they have left your office with the final exam.

It is against University regulations and federal and state confidentiality laws to leave graded exams or homework outside your office door. Tell your students that they may pick up their exams during your regularly posted office hours or during Section. Class lists and all student records are confidential; therefore, you may not post grades or leave exams outside your office door. Students will have access to their grades through GOLD. If you have any question regarding the confidentiality of student lists and records, contact the Student Affairs Officer in the Departmental Office.

Remember that final grades are due in the Registrar's Office approximately three days after the last day of final exams. Therefore, it is imperative that you finish your grading duties within that time period. In general, prompt grading and returning of exams is appreciated by students, the instructor and the staff. Grade reporting is the sole responsibility of the course instructor, not the TA.

Occasionally the instructor for the course you TA'd for is unavailable the following quarter, therefore the responsibility of verifying grades and handling student grading problems is delegated to the TA(s) for the course. The instructor will supply the TA(s) with the necessary grade books, finals, and scales to handle this task. Please see the department Undergraduate Vice Chair or Student Affairs Officer if you have any questions or need advice on this matter.

# Teaching Assistants and Personal Relationships with Students

The Academic Senate's Faculty Code of Conduct states: "Whenever a faculty member is responsible for the academic supervision of a student, a personal relationship between them of a romantic or sexual nature, even if consensual, is inappropriate. Any such relationship jeopardizes the integrity of the educational process." Furthermore, it states that the following are unacceptable types of conduct: "Entering into a romantic or sexual relationship with any student for whom a faculty member has, or should reasonably expect to have in the future, academic (instructional, evaluative, responsibility supervisory). or Exercising academic responsibility (instructional, evaluative, or supervisory) for any student with whom a faculty member has a romantic or sexual relationship."

#### Informal Advice from the Mathematics Department

Your job is to help your students learn mathematics. Students today seem to prefer and benefit from a relaxed and informal relationship with their teachers, and they seem to learn more when they get it. It is important to remember that most students will consider you to be primarily a valuable information source. You should be very hesitant to attribute any of the following student behavior patterns to your sexual magnetism. Remember that students come to your class or your office for quite different reasons than if they were attending a party or visiting a singles bar. Don't confuse these situations:

1. A student comes to see you often. (The student may just need a lot of help, and finds you knowledgeable and helpful.)

2. A student sits very close to you while you show how to work a problem. (Since you are following the pedagogically correct procedure of writing on paper instead of the board, the student must sit close to see clearly. The student may also want to get that paper to take home for further study.) 3. A student listens attentively to what you say and seems impressed by your intelligence. (Math is hard for many people and often seems like magic until they catch on.)

4. A student is very grateful for your help. (The student wants to pass, and you are earning your pay by helping them learn.)

It is sometimes tempting to play flirtation games with students, usually to relieve the boredom of simply doing the same problems for many different students. *DON'T!* Students aren't coming to your office for your amusement. If you are feeling bored while helping a student, think of a new angle from which to view the problem and explain it that way.

It is far better to avoid flirtations or sexual interactions with vour current student. Remember that such an interaction with a student in your class can permanently alter your relationship with that student, not always in a way which is conducive to learning. Any sexual advance you make, however polite and tentative you intend it to be, may be misinterpreted by the student as containing a veiled threat. If you respond to a sexual advance from a student (assuming the advance was real, and not, as is more common, simply a misconstrual of one of the behaviors listed above), you run the risk of creating an expectation that you will see to it that the student does well in the course. Since you clearly can't go beyond the usual help you give any student, such an expectation could lead to trouble. Any sexual interaction with a student in your class is fraught with extreme danger, and could lead to academic dismissal. The burden of proof is on you to defend your conduct.

#### **BE WARNED!**

#### **Employment Forms and Pay**

The Staff Graduate Advisor (SH 6607) is responsible for employment form processing. Please be sure to see the Staff Graduate Advisor to sign the necessary paperwork before the beginning of the quarter. Under Federal Law, all employers are required to verify documents for each employee showing identity and employment eligibility. Please note that any time you have a change of address or home phone number, you must complete a Personal Data Form. Failure to change your address will result in your W2 (tax form) not being forwarded to you.

Please note that any appointment in a student academic title is a temporary appointment and renewal or extension is dependent upon programmatic needs, availability of funding and satisfactory performance. As with any temporary appointment there is no guarantee or obligation on the part of the University for renewal or extension (Red Binder, IV-1).

Your paycheck will be received on the 1st of the month for the previous month worked. *The first paycheck for Fall quarter will be received on November1.* You have the option to have your check, (1) mailed to the department or, (2) deposited directly into your bank account. If at some point you resign the appointment, you must see the Staff Graduate Advisor to sign the necessary separation forms.

Due to the late arrival of your first paycheck, it is possible to apply for a Teaching Assistant loan as well as to defer your fees. Go to the Financial Aid Office for more information.

#### Offices and Keys

At the beginning of each academic year you will be assigned an office. You can continue to use that office until you are asked to move out. Per University policy, smoking is not permitted in your office or in any building on campus.

You will be issued keys to your office, building, mailroom, kitchen, conference rooms, and the computer lab. See the

Department Receptionist (SH6607) for keys. The computer lab is in SH 4617. Any abuse of the computer lab or security system may result in your loss of privileges in using this facility.

Should you resign from the University, you are responsible for returning your keys. Failure to do so may result in a delay of your paycheck or a re-keying charge added to your BARC account. If you lose a key, please report it to the Math department staff immediately.

# Supplies

Only office supplies directly applicable to your teaching responsibilities will be provided by the Department. Please see the MSO for information on obtaining your supplies.

#### **Textbooks and Equipment**

You need not purchase the text for the course you will be teaching. A copy of each text may be checked out from the Department Receptionist at the beginning of the quarter. These texts are to be returned, in good condition, at the conclusion of each quarter. You may obtain a course syllabus from the instructor.

#### Photocopying

Copy machines are located in the departmental equipment room. They may only be used for the course related material of your instructional assignments, NOT for your own coursework or personal use needs. A copy code will be provided to you by the Department Receptionist for the quarters that you are teaching. Seek assistance in the Main Office (SH 6607) if you have difficulty. Do not try to "fix" the copiers yourself.

#### Mailboxes

You will have a departmental mailbox in SH 6623. Your box will be used for intracampus mail such as communication between yourself and course instructors and students, or campus and department announcements, etc. The Mathematics

Department address is not to be used for personal mail. The faculty mailboxes can also be found in SH 6623, as can mailboxes to be used strictly for communication with course Readers. You should note that the mailroom is open from 8:00 a.m. to 5:00p.m., Monday through Friday. Please inform your students of the mailroom hours.

#### Telephones

There is a telephone in the computer Lab for graduate student use (for local and campus calls only-please keep to a minimum) and a public phone outside, adjacent to The Arbor. If there is a *genuine* emergency or someone needs to reach you concerning *official* University business, a message may be left at 893-8192 or 893-5306, and it will be put in your box. Your students can leave messages for you at 893-2171, should they have an emergency (they should be encouraged to contact you via email or a note in your mailbox). These numbers are NOT to be used for personal (non-emergency) business (e.g., doctor appointments, your car mechanic, etc.). For classroom emergencies, dial 9-911 from campus phones and 911 from pay phones.

# **Scheduling Office Hours**

Regardless of the number of sections you are teaching in any given quarter, or the nature of your teaching assignment, you are required to hold three office hours per week, outside of your regular discussion times. In most cases, two of these hours will be held in the Math Lab, and one will be held in your office. MATH LAB OFFICE HOUR DUTIES WILL BE STRICTLY ENFORCED. There are three exceptions to holding office hours in the Math Lab: (1) students who are serving *exclusively* as a Teaching Assistant for Math 8 or Math 100 in any given quarter; (2) students who are serving *exclusively* as a Teaching Assistant for upper division mathematics courses in any given quarter; and (3) students who are serving as a Teaching Associate in any given quarter (your three office hours per week will be held in your office if you fall into one of these three categories). Please note that if, over the course of an academic year, your schedule is such that you have not been assigned any discussion sections for a particular quarter, you will still be responsible for working two hours per week in the Math Lab.

#### **Tutorial Services and Counseling for Your Students**

Occasionally students will seek information from you about personal counseling services. For remedial courses in reading and arithmetic and workshops on topics such as note-taking, test-taking and study methods, you may refer them to CLAS (Campus Learning Assistance Service, Bldg. 300, 893-4248). CLAS also offers drop-in and group tutorial sessions, as well as lists of private tutors. It is the responsibility of the student to negotiate suitable payments with the private tutors.

Students in need of personal and/or career counseling should be sent to *Counseling and Career Services* (Bldg. 599). The staff there is capable of handling students with minor or serious adjustment problems. Do not assume the responsibility of dealing with the psychological problems of your students. If a student appears to have a persistent problem and will not seek counsel elsewhere, be sure to discuss the situation with the Undergraduate Vice Chair. Undergraduate students needing academic advising should be referred to the Undergraduate Advisor in the Mathematics office.

# TA Assignments and Scheduling Conflicts

As soon as you are given your TA assignment, you should carefully review it for any possible conflicts. The earlier you request a scheduling change, the easier it will be to grant your request. Because changes have a wide "ripple effect" on others, they are made only for compelling reasons. To request a scheduling change, contact the department Undergraduate Vice Chair. Please note that by "scheduling change" we mean that you will be given a new assignment - existing discussion section times cannot be changed to accommodate your schedule. Along with your request, you will need to give the Undergraduate Vice Chair your updated schedule to avoid potential conflicts with your new assignment.

#### **Review Sessions**

If you wish to schedule a review session before an exam, please see the Department Receptionist at least seven working days in advance of the date you need to announce the event.

#### Absences

If you find that you must miss one of your assigned discussions, please notify your instructor and the department as soon as possible. If you find that you must miss one of your assigned Math Lab hours, notify the Math Lab Manager as soon as possible. You are required to see the Staff Graduate Advisor in order to complete a "Short Term Leave Request" in advance of your scheduled absence. It is your responsibility to arrange for your own substitute and to have your substitute approved by the department (Math Lab substitutes can be approved by the Math Lab Manager). In the case of illness or unexpected emergencies please advise the department of your arrangements by calling 893-5306, 893-8192, or 893-2171.

# Mandatory Attendance in Discussion Section

Attendance in discussion section is mandatory for lower-division classes. The instructor may use the attendance information in assigning grades. The precise method used to "enforce" attendance is determined by the instructor of the class. It is the job of the TA to follow the policy adopted by the instructor for that class. Outlined below is a method that has been used in the past. Whatever method is used must be clearly stated on the course syllabus distributed to students on the first day of class.

In each discussion section the TA will pass around a notebook in which students sign their name. The TA can use this notebook to keep a record of who attends section. At the end of

the quarter, the TA provides the instructor with a list showing how many sections each student missed. Any student that has missed enough sections to warrant a penalty should have their name clearly identified. The instructor might allow a student to "make-up" a section by going to an extra section by the same or a different TA. In this case the TA must update their attendance records from those of the other TAs for the course so that students who went to a section by a different TA are given credit for it. The instructor might also allow a TA to use their judgment concerning medical excuses for missing a section. It is important that a careful record is kept of who attends section. The TA should maintain attendance records in a notebook used only for that purpose.

# Instructional Development

As a TA and future instructor, you will want to continually improve your teaching competency. The Office of Instructional Consultation (Kerr Hall, Room 1130) provides important services for this. At your request, OIC will provide a videotape and critique service. They will tape one of your discussion sections and then provide various consultation options. For example, you may see your tape: (1) alone, (2) with the course supervisor, (3) with OIC's educational consultants, (4) with other TAs. This service is worthwhile and the Mathematics Department **requires** each new TA to be videotaped at least once during the Fall quarter. If you decide to use this service beyond the required amount (and we encourage you to do so), then contact the OIC for scheduling.

Several times each quarter, the OIC offers teaching improvement workshops. For example, workshops on writing quizzes and questioning skills have been offered in the past. Also, there are grant moneys available if TAs wish to improve instruction or make innovations in a course for which they are a TA. The grants will cover the cost of materials and provide a TA stipend. Apply directly to the Office of Instructional Development.

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If you need this publication in an alternative format, or if you have special needs because of a disability, please call the Mathematics department at (805) 893-8192 to arrange for accommodations.