MATHEMATICS 302, PART I

Apprentice Teaching I

University of California, Riverside
Fall Quarter, 2002
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Preliminaries

To quote the UC Riverside General Catalog, this two quarter course sequence is "intended to aid in the learning of effective teaching methods such as the handling of mathematics discussion sections, preparation and grading of examinations, and student relations," and it is graded on a satisfactory (**S**) or no credit (**NC**) basis. For the most part, it deals with methods that have been successful in the past. While it is probably impossible to create any foolproof methods for doing a good job in the classroom, it is hoped that the material will encourage and help you to develop a teaching style that fits your personality and to allow your students to benefit maximally from their classroom experiences. As with other jobs, being a good teacher requires practice and experience that cannot be provided in a short course, but it is to be hoped that the information and suggestions in the course will help you avoid some standard pitfalls and make things go a little more efficiently. The Fall Quarter course will deal with the absolute necessities for conducting classes, and the Winter Quarter course will deal with issues that are important to enhancing teaching effectiveness.

General responsibilities of a teaching assistant. Roughly speaking, these fall into three categories:

1. Helping the development of individual students in the course section.
2. Carrying out the plans and implementing the guidelines of the course, and, for discussion sections, the course instructor.
3. Furthering your own training and development as a graduate student and a teacher.

Neglect of any of these risks damage to yourself and your students, and it could even lead to loss of your position!

Here is a more detailed overview of the topics to be covered in the Fall Quarter:

Getting started. Things that need to be done before or on the first day of class.
Essential survival skills. Frequent concerns of new teaching assistants, easily avoidable common mistakes, a few basic rules and responsibilities, suggestions for effective time management.
Working with primary instructors. Relating to instructors, handling differences of opinions, obligations of primary instructors, the union contract, harassment and other inappropriate conduct.
Objectives of a class session. Answering questions about previous material, presentation of new material, motivation of students and clarification of expectations from students.
Preparation for a class session. Budgeting time, including typical daily schedules, starting the course off well, choosing and organizing material, designing and grading short quizzes, mistakes to avoid.
Relating to students. Maintaining a professional image, enumeration of student concerns, techniques for improving rapport, allowances for cultural differences, contracts between students and instructors.
Guidelines for classroom presentation. Orderly procedures for answering questions, finding the right level for instruction, speaking and blackboard techniques, interaction with students, cross disciplinary issues, mistakes to avoid.

Analysis of class preparation. The assignment is to write up solutions to one or more typical problems that might be presented in a discussion section.
Outside the classroom. Office hours, review sessions, record keeping, student complaints and appeals involving grading.
Nondisciplinary problems arising in class. Situations where budgeted time is too little or too much, student questions outside the normally expected range, referring students to other resources.
Evaluations. Criteria for evaluating presentations by (prospective) teaching assistants, evaluation forms for primary instructors and teaching assistants to be filled out by students, teaching assistants and primary instructors, grading students' performance in the course, classroom visits to TA classes, and assessment of the course itself.

Some important advice. You are strongly encouraged to interact with other teaching assistants in the Department. In particular, the can sometimes supply valuable information that is not readily available elsewhere. However, such peer information carries no guarantees for accuracy, especially when it comes to official matters. When questions about rules, regulations and policies arise, check things out with those in authority, including the office staff, the Chairman of the Graduate Committee, the Graduate Advisor, the Undergraduate Advisor and the Department Chairman.

Last but not least, **in the classroom YOU represent the Mathematics Department and the University of California at Riverside!!!** In the end it is to everyone's advantage if we all do our jobs in a way that reinforces the positive opinions that both have earned.