

Teaching Statement

Eric Tressler

I enjoy teaching, and have found it to be sometimes frustrating but ultimately very rewarding. My teaching style is interactive, and I try to keep my lecture plans flexible enough that I can respond to questions carefully. Most of my experience has been as a teaching assistant, but I have also been the instructor for a precalculus course at the University of California, San Diego (UCSD). I have adapted and revised my teaching philosophy throughout my years in both of these roles.

1 Teaching background

My first teaching experience was during my final year at Virginia Tech, when I was assigned to work at the university's "Math Emporium." The Math Emporium is a very large (500+ workstations) computer lab where students in calculus and linear algebra courses could come for help and to use MATLAB and Mathematica. As an assistant there, I found that the students were asking questions that they could answer for themselves, except that they were unsure of how to go about using their resources to find the answer. Whenever possible, especially for freshman courses, I tried to respond to questions by helping students use their textbooks and computer resources to find the answers to their questions. This helped the students more than simply giving them answers, and additionally allowed me to focus on helping students who were having more conceptual problems.

Since coming to UCSD, I have been a teaching assistant for many courses, including differential and integral calculus, advanced calculus, complex analysis, linear algebra, statistics, and numerical integration. At UCSD, teaching assistants hold weekly discussion sections in which they help students with homework problems and answer questions about topics from lecture. I learned that the types of explanations that I give to students in real analysis aren't helpful to a beginning calculus student, and even among the different calculus classes I have found that very similar questions call for different responses depending on the audience. One thing that I liked about being a teaching assistant was that discussion sections were run without an agenda, which let me focus all of my attention on the specific topics that the students

were having particular trouble with. As an instructor, I have found this to be more difficult, but I have still tried to maintain some of that flexibility in my lesson plans.

In the spring of 2008 I was the instructor for a precalculus class, an opportunity that UCSD sometimes extends to graduate students after they have advanced to candidacy. The students responded well to my lectures, and attendance was very high; I plan to accept any other teaching offers I get during my remaining time at UCSD, and I look forward to teaching after I graduate, perhaps including some community college courses during the spring and summer of 2010.

2 Future teaching plans

I study combinatorics, and I would like an opportunity to teach a course in combinatorics or graph theory. However, I enjoy teaching students and trying to motivate them in all areas of mathematics – there is a great opportunity in basic calculus courses, for instance, to persuade students that mathematics is useful and interesting. I am interested in teaching courses at every level. I have revised my teaching methods throughout my years as a graduate student, and I will continue to do so as I get more feedback and gain experience.