TEACHING STATEMENT-ERIC SAMANSKY

PHILOSOPHY

I have always had a strong connection to teaching. I graduated from Haverford College, a small liberal arts school, and am attending Rice University, a modest-sized institution. The small classroom atmosphere and the relaxed interaction with faculty make me feel close to the lectures and teaching styles. Similar to these schools, I have adapted my method of teaching to provide opportunities for students to learn in a variety of ways, such as delivering a clear lecture, allowing for questions and comments, and granting time outside of class.

The most important of these opportunities is the lecture. I make my lessons clear and understandable. I do not sneak up on significant results, but effectively motivate the information. It is important to prepare students with ideas and examples so that the information is more intuitive. One undergraduate writes in the course evaluation that “My interest and knowledge of the course has increased tremendously because the information presented to me was clear and straightforward,” while another comments that “This course really got me visualizing the concepts and ideas that Eric presented to me.” I base my lectures on motivating examples which enhance student understanding, and organize the material in a flexible but structured format to ensure fluidity and precision. For instance, undergraduates comment that “the course was by far the best structured math course I’ve yet taken,” and “Eric was a very organized and professional teacher. He catered to a hands on approach detailing problems with examples and showing us steps for how to solve the different types of problems.”

In lectures, I often present questions and pause frequently to gauge the students’ reactions to a result or computation. When encountering questions or confused looks, I approach the topic from a different angle. Also, I encourage students to put ideas in their own words, not only to benefit students individually, but also to provide a new voice to a concept. During class, I often refer to theorems or results as “nice,” and enjoy seeing students share my sentiment and even use my terminology. Also, I assure students that answering questions incorrectly does not reflect poorly on them and is an important part of the learning process. One undergraduate comments that “Eric was very effective as a teacher because he always made sure that the students understood what was going on, and was truly receptive of questions.”

I was fortunate to have a very interactive class when I taught multi-variable calculus. One undergraduate in particular sometimes dominated, and I was concerned that the answers were coming too quickly for the other students to process. To steady the pace, I would pause and ask for questions even after the correct answer was given. In a short time, participation among students re-balanced, and the class remained active.

From my own education, I remember how helpful it is to ask questions outside of class. In this spirit, I match my office hours to students’ schedules. On the first day of class I
hand out my schedule and invite students to visit at a convenient time. I then schedule weekly office hours according to when students visited, but also encourage them to set up an appointment if necessary. Many students commented positively on the course evaluations that I set aside a lot of time for office hours.

At Rice University undergraduates attend weekly problem sessions run by graduate students. As an instructor, I decided not to attend these sessions. This is a time for students to work together - they might ask different questions to others than they would their instructor. However, I regularly met with the graduate students to learn what questions the students asked, and adjusted my lectures accordingly.

Before tests I occasionally set up a student-run review session. I insisted that students would be the ones to ask and answer all questions, while I only involved myself if they became stuck or had difficulty with a concept. Students attending these sessions found them helpful.

Teaching requires a clear and straightforward lecture style, and instructors should provide plenty of ways for students to learn however they are most comfortable. As a result students become more open to learning.

Experience

At Rice University, I have taught second-semester calculus, first-semester calculus, and multi-variable calculus. As the sole instructor for these classes, I prepared the syllabi, lectures, homework, and tests, as well as held office hours.

Before teaching classes, I received six semesters of training in the Graduate Student Teaching Seminar. Students practiced lecturing and gained exposure to various teaching styles. Additionally, we engaged in group activities designed to increase student interaction in the classroom. Senior faculty presented their views on handling class schedules, syllabi, and problem students. I received many ideas that I could implement in my classroom, such as emphasizing important material effectively and timing out lectures.

As a teaching assistant in various classes, ranging from calculus to graduate abstract algebra, my responsibilities included holding recitation sessions, grading homework and tests, and holding office hours for students.

For two years, I participated in the undergraduate VIGRE program at Rice University teaching undergraduates advanced topics, such as countability, Hausdorff measure and dimension, and fractal geometry. Moreover, I supervised undergraduate research projects, some of which has led to publishable results.

In the future, along with teaching the core mathematics classes, I plan to teach students advanced topics and current research, including my own. My experience attending an REU at Northern Arizona University was invaluable to my success as a graduate student. Beyond teaching students in the classroom, I also look forward to advising them for applications of the knowledge elsewhere. I have already talked to several students about math classes to take in the future and long term goals, and gave a recruitment talk at an REU, describing graduate school and what to expect.

I look forward to bringing these experiences to my professional career, and having the opportunity to impact the academic lives of my future students.