Teaching Statement – Robert Edward Lee DeVille, Courant Institute

I have been fortunate to have a wide variety of teaching experiences. I was a teaching assistant as an undergraduate and graduate student for a total of eight semesters, taught three summer courses as a graduate student, and am now teaching my seventh class as a postdoc. I have taught my own class at every level: introductory courses such as the Calculus sequence, advanced undergraduate courses such as linear algebra, and graduate topics courses on dynamical systems and applied mathematics.

I have also taught successfully at each level mentioned above, and have consistently received good evaluation scores from my students. As one example, my overall average when teaching a ninety-student Differential Equations course at RPI in Fall 2002 was a 4.68 out of 5, and the average of my overall scores in the six courses I have taught as a postdoc was 4.51 out of 5.

I think that the two main components of teaching well are an intimate knowledge of the material, and an ability to communicate with the students. I always strive to be as fluent with the subject material as possible, and while lecturing I always present material in several consecutive ways, e.g., describing the concept three or four times in words, writing the concept down in a different and more detailed way, and presenting concrete examples for everything. I feel that this is particularly important at the lower levels, and doing all of this helps me communicate with the students more effectively, and is, in fact, more enjoyable for me as a lecturer. Also, I always strive to make the material as concrete as possible. For example, in a differential equations course, I bring as many examples of real-world phenomena into the lecture as possible. When teaching discrete math, I explain the theorems in the language of computer science. In particular, I am now teaching Calculus at NYU mostly to business students. Here, I find that the students are interested in finding out how to maximize profit for a company, for example, and this leads naturally into a general discussion of optimization of one-dimensional functions.

I was also involved in various educational projects at RPI in my role as a VIGRE postdoc. For example, I organized two seminars for beginning graduate students. One was for beginning TAs, discussing both teaching techniques they might use in classes, and also solutions for potential issues which might arise. The second (which I co-organized with another postdoc) was a research-oriented seminar for students who had not yet chosen advisors. We arranged for the faculty members to give a one-hour synopsis of their research which should be accessible for beginning graduate students, both to give the students an idea of what contemporary mathematics research is, and also to try to match graduate students with faculty members who work in their areas of interest.

In all, I am comfortable in the classroom, and can interact well with undergraduate and graduate students. I believe that I can make a contribution to teaching as a faculty member in a mathematics department.