

# TEACHING STATEMENT

## Teaching Experience

My full teaching experience is built upon many sources, both inside and outside of the classroom. I combine my work and accomplishments in the Program in Interdisciplinary Education Research (PIER), my pursuit of the Eberly Center's "Future Faculty" certification, and my attendance at teaching conferences with my experiences as both a student and instructor in many courses. The PIER program requirements included a course titled *Educational Goals, Instruction, and Assessment* in which I learned about cognitive science foundations and the teaching practices of top college professors. I planned the curriculum for a semester-long introductory economics class as my course project. The Future Faculty certification requires attending six professional development lectures on topics such as "Working Well One-on-One" and "Providing Effective Feedback," multiple observations and reviewed feedback on our classroom teaching performance, and an independent project in which I focused on graduate student grading practices.

I have principally instructed students at Carnegie Mellon University (CMU) in the Tepper School of Business. I taught *Regression Analysis* for three straight summers. At CMU, this is a second-level applied statistics and modeling course that is required for undergraduate business majors, usually taken during sophomore or junior year. During my three years of teaching *Regression Analysis*, I incorporated student feedback to improve my course each time. Two specific examples of this demonstrate my commitment in the classroom and highlight some of the principles that guide my teaching philosophy. My lecture slides now include suggested problems, separate from homework assignments, that students can complete to increase their understanding. Extra guided practice and feedback in a low stakes environment helps students improve toward mastery of subject material. Student feedback from my first year showed me that some students fell behind early in the course because they could not keep up with simple work in Excel. I designed a 30-minute tutorial to introduce such students to useful Excel functions, graphing, and best-fit lines. It served later cohorts in my class by quickly bringing everyone up to speed on the necessary tools of my course, and allowed students to focus on the important regression concepts, not Excel functionality.

My most rewarding teaching experience at CMU stemmed from my involvement with *Managerial Economics*, an MBA course focused on the producer side of microeconomics. For six straight years, I was tasked with running extra tutoring sessions for only the invited students who struggled on the midterm. Over that time, more than 40 students have dramatically improved their performance on the final after attending my sessions, where we focus alternately on the big picture and then the details of problem solving in the course. Finally, I served as a teaching assistant and recitation leader for the undergraduate *Macroeconomics* course in the fall of 2009.

## Teaching Philosophy

My goal at the beginning of every course and each lecture is to guide students to more productive ways of thinking. Details are certainly important in any course, but they can be lost over time if students are not taught how to organize their new knowledge effectively. In my *Regression Analysis* course, remembering the details of the F-statistic is much easier if students understand the implications and necessity of a global significance test.

As experts in our field, we are usually able to quickly make connections across concepts, but our students may not find this as easy to achieve. Therefore, in my courses, I strive to make these connections across concepts explicit and then encourage students to work with these complementary organizing structures. In the *Managerial Economics* course, many of the students I worked with were

incapable of seeing any similarities between monopolies and perfectly competitive environments. They believed they needed entirely separate procedures to solve each type of market equilibrium, and grew frustrated with their inability to “memorize” both procedures. When I pointed out that producers in both types of markets operate by the same maxim (namely that marginal revenue must equal marginal cost), but that the details of what marginal revenue looks like are different, the proverbial light clicked on every time. By explaining the similarities and discussing issues of applicability, students emerge from my courses with greater capability to develop connections between seemingly disparate material in order to successfully transfer knowledge between topics, subjects, and applications.

I aspire to be a great teacher for all my students. On a superficial level, this requires that I am approachable inside and outside of the classroom. Addressing students by name, conversing with them, and having flexible and open office hours help achieve this goal. Great teaching for each student also requires acknowledging that students enter classrooms with different skill sets, cultural backgrounds, and goals in the course. I attempt to meet students near their level of mastery and increase their knowledge base from there. I have included “reach” goals for the more talented and interested students in the past by adding optional, difficult problems to the end of homework assignments. This challenges and motivates the more advanced students without depressing and frustrating their colleagues with work beyond their reach. Larger classes can obviously challenge instructors to reach each student, but following these guidelines keeps me focused on being an effective teacher for each individual in my classroom.

Instructors are too often led by a desire to “cover all the material” without realizing that “teaching by mentioning” is insufficient. Students do not learn just because I have said something, and they do not demonstrate understanding by regurgitating facts or performing skills by rote memory. They begin to learn when what I say or demonstrate can be connected to their previous knowledge, skills, and dispositions, and when I make those connections explicit. They continue to learn through an iterative process of practice and feedback, and ultimately demonstrate their understanding when they apply what they learned to make decisions in other settings.

## Teaching Interests

My teaching interests stem from three different components: prior teaching, prior classroom experience as a student, and ongoing research. I am comfortable teaching both undergraduate and graduate students, as I have in the past. I am open to teaching a wide range of college courses that economics departments might offer. The courses I specifically would enjoy teaching include the following:

- Microeconomics → All undergraduate, Masters, and PhD courses
- Regression Analysis or Econometrics → All undergraduate courses
- Economics of Education → Advanced undergraduate, Masters, and PhD courses
- Economics of Antitrust Law → Advanced undergraduate course