

Teaching Statement

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I. Teaching Experience

Teaching in a classroom setting is an important part of the academic training of a Ph.D. student. Since the second year of my graduate study at the University of Michigan, I have taught four courses as a teaching assistant. I have taught two introductory courses (*Principle of Microeconomics* (3 semesters), *Introduction to Statistics and Econometrics* (2 semesters)), one *Intermediate Statistics & Econometrics* course (1 semester), and one graduate-level *Econometrics* course (3 semesters). For each course, I am responsible for holding weekly discussion sections and office hours, grading and sometimes designing exam questions.

Teaching has been and continues to be an enjoyable and rewarding experience for me. As an instructor, I am proud of the helpful role I played in students' academic progress. Learning is also an experience I share with the students. Whenever I teach a difficult notion, explaining it invariably results in enhancing my own understanding of it. Moreover, I believe teaching provides the best opportunity to practice explaining economic concepts to a general audience, which is an essential skill a researcher has to possess.

After almost five years of teaching, I have developed a set of teaching principles which I believe captures the core of effective learning.

II. Teaching Philosophy

(1) Structure and Clarity

This I believe is the foremost element in making instructions effective. A course usually consists of several topics which are logically connected. Failure to see this connection can cause confusion for students. In discussion sections, I try to provide "the big picture" by first reviewing what students have learned, what questions remain and then discuss how we would like to address them in the class. I find emphasizing the reasoning behind models and approaches helps keep students on track.

I have also improved my clarity of instruction over the years. When I first started teaching, some student commented "*I had a very difficult time learning from my GSI in discussion and I was often more confused when I left discussion.*" while in the later years they wrote "*A pretty decent GSI with strong knowledge of course material. He explains things thoughtfully and makes sure students understand before going on.*" I attribute this improvement to several techniques I have developed and applied over the course. First, use "steps." Breaking a problem into clearly-marked small steps

helps students follow along. Second, use concrete examples. Abstract concepts can be more easily understood if students can relate them to examples in their daily lives. Third, speak loudly and write clearly on the board. This can help students avoid confusion and keep focus. And finally, present the material in different forms, be it verbal, mathematical or graphical. Some students may understand ideas better through one way than another. I find these principles to be effective in improving the quality of the instructions.

(2) Engagement

I believe students get most out of classes when they are actively engaged in the learning process. As a result, I make every effort to keep students interested. First, it is crucial that an instructor be passionate about what he/she is teaching. It is difficult to expect students to take an interest in learning if the instructor fails to convey any sense of enthusiasm or excitement. Second, students become more engaged with the material and more willing to invest their time when they find the topic interesting. I find motivating a topic with examples related to their everyday lives gets their attention. For example, “student discount” is prevalent in restaurants and bars on campus, which serves as a good example for “price discrimination”. Finally, I also try to interact with the classroom as much as possible. I encourage students to ask questions whenever they get stuck. I also pause frequently to check if they have been following.

(3) Constant Adjustment

I do not fall into the trap of viewing teaching a certain class as a static process. On the contrary, I believe it should be adjusted constantly based on the backgrounds of the students, the progress of the field, as well as the expectation of the labor market.

The adjustment is especially indispensable for introductory courses. Unlike students in intermediate or advanced economics courses, students in introductory classes come from a variety of backgrounds with varying prior knowledge about economics and mathematical skills. The large degree of heterogeneity that exists among students makes it hard to gauge the class level. In such situations, soliciting feedback from students frequently and timely is the best way to find out how they feel about the pace and the difficulty. One semester, after I conducted a mid-term evaluation and learned that they felt going over homework is too tedious, I changed the content and prepared more difficult problems for them. This adjustment was certainly noticed and appreciated by the students, as one student wrote *“The classes started off very boring and for the most part, unhelpful. However, after the instructor had the class take an evaluation survey halfway through the semester, he took the suggestions to heart and great improved the interest and usefulness of the course.”* Seeing that my modification made a difference was a very rewarding experience. I kept adjusting the discussion sessions each year since every cohort was different.

Of course, as a teaching assistant, I do not have the full autonomy of the course design

and sometimes this can limit the improvement I can make. Therefore, I am looking forward to the opportunity of designing my own courses as an independent instructor.

III. Teaching Interests

Based on my teaching and research experience, I am interested in teaching a variety of courses at different levels. First, I am an empirical economist. I am deeply committed to equipping students with skills in data analytics, which I think are highly valued on the labor market. I am capable of teaching courses on *Quantitative Methods*, including but not limited to, *Statistics*, *Econometrics* and *Machine Learning*. Second, I have taught Principles of Microeconomics three times as a graduate student instructor. I am well-prepared to teach *Microeconomic Theory* at introductory, intermediate, and more advanced levels, including topic courses like *Game Theory*. Third, I am more than happy to teach classes related to my research interests in *Energy and Environmental Economics* and *Industrial Organization* at both the undergraduate and graduate levels. In addition to what is mentioned above, I am also open to opportunities for developing and teaching other courses, such as inter-disciplinary courses and courses in applied microeconomic fields that are related to my field of research.