

Teaching Statement

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As a graduate student at the University of Pittsburgh, I have taught two semesters of undergraduate Game Theory as an independent instructor and have led recitation sessions as teaching assistant for Introduction to Microeconomics. I have also served multiple times as teaching assistant, writing tutor or mentor in roles that involved one-on-one interactions outside the classroom with students across various disciplines.

As an instructor, my primary goals for each course are

- (1) to generate enthusiasm among students for problems in economics and the social sciences, and
- (2) for the students to come out of the course with a better sense of how to apply economic thinking to real problems of interest to them (and not just those covered in the class or of interest to economists).

I believe these goals are best met when learning is motivated by a desire to solve problems that are intellectually challenging to the students, and the students feel more confident in their ability to do so at the end of it. The structure of my classes reflects this problem-centered approach to learning.

Early on in each lesson, students engage in classroom activities that mirror real decision-making scenarios. These could, for instance, involve trading with each other in a simulated market for “used cars” or setting prices for competing firms in an oligopoly. We then jointly brainstorm why trading failed in the market for used cars (or not) or why their firms made zero profits. The guided class discussion culminates in an economic model that can be used to explain the observed behavior. It is particularly important to me that the economic theory being studied is motivated by the students’ own observations.

I also make sure to engage students in examples and activities that highlight the limitations of the models being taught. For instance, during one game theory lecture, we watch a TV clip where two game show contestants seem to successfully coordinate on the optimal (as opposed to the Nash equilibrium) outcome of a one-shot Prisoner’s Dilemma game through cheap talk. Students work in groups to come up with alternative models of what is happening. The resulting medley of student-generated models of altruism, signaling, off-screen arbitrage, etc. helps students better understand the flexibility of economic theory as a tool for predicting behavior and feel confident about using this tool in creative ways beyond its applications in the classroom.

I tend to aim for at least half the classroom time to be spent on group activities, discussions or problem solving. Such a learning environment works best when students feel comfortable amidst their peers and instructor and when the context of the classroom activities are relatable. About a third of the students in my courses have been international students and roughly half my students did not major in economics (and did not plan to). So, I make a conscious effort early

in the semester to understand students' expectations of the course and how it interacts with their broader personal and professional learning goals. I also administer anonymized mid-term surveys checking on the students' mental and academic health with respect to the course. Doing so has allowed me to tailor the topics and the class activities of the course to the different needs of each of my cohorts.

I believe students need to be constantly engaged in the classroom. To this end, I provide them with worksheets of incomplete notes and example problems from my lectures that are meant to be completed during class. These worksheets make sure the students are actively following along as opposed to just taking notes without fully processing the information. Periodically, they exchange worksheets with each other during class to review their peers' solutions (and I occasionally collect these worksheets at the end of each class). Doing so helps me reach out to students who are relatively reserved during group discussions, while also making sure they have a peer to share their doubts and solve problems with (hopefully outside of the classroom too). To further foster group work, I make sure to set aside class time for students to start working together on homework assignments. During such breaks in lectures and classroom activities, I also go around and check in on students' individual prowess with concepts and worksheet problems and encourage them to share their remarkable insights and solution strategies during discussions.

I believe graded assessments serve primarily to let the students evaluate their own learning relative to what is expected from the course (more than for me to evaluate them) and secondarily for me to evaluate myself on the effectiveness of my teaching methods. To incentivize this self-evaluation, I give every student the opportunity to redeem up to half the points lost on any graded assignment or exam by meeting with me one-on-one and showing me they understand why they lost those points. In turn, these meetings help me gain a better understanding of how to assist individual students and the appropriate pace for the course. I usually end up meeting about two-thirds of the class one-on-one during any academic term.

Each teaching experience has consistently improved my effectiveness at meeting my teaching goals. Consequently, my students have also benefited from my learning curve as their rating of my average teaching effectiveness increased from 4.1/5 on my first teaching assistant position to 4.3/5 in my first year as an Instructor to 4.4/5 in my second year as an Instructor.

Besides undergraduate game theory and the core courses in micro- and macro-economics, I am well equipped to teach experimental economics and applied microeconomic electives such as urban economics, public economics, economic history, development economics and environmental economics. I am also able to incorporate my experience with big data mining and analysis techniques to enrich these courses.