

## Teaching Statement

I am fortunate to have been able to teach several undergraduate economics classes at Iowa State University and Drake University during graduate school. Teaching these classes has been an inspiring and rewarding experience for me, as it provides excellent training opportunities for me to better prepare for a career in higher education. I am proud to be a recipient of the Iowa State University Teaching Excellence award and the economics department Robert Thomas Teaching Excellence award, and I have consistently earned high student evaluation scores for all courses I have taught.

The main goal of my teaching is to develop students' interest in the field of economics by helping them understand the basic ideas in this subject, and think critically and apply what they have learned properly. Drawing upon my personal experience, teaching introductory economics is challenging for the instructor, as many students, especially college freshmen, have difficulties understanding the abstract thinking of marginal analysis widely used in economics, and linking the two sides of market through equilibrium. This calls the instructor to be patient with students' learning progress, and to come up with creative ways to help them quickly digest concepts introduced in class. One important thing that I have learned from my experiences is that students will be motivated to learn if they find that the instructor treats them with respect. For example, as long as the class size is not large, I try to recognize every student by his or her name during the first several weeks, so students can feel that they are not merely meaningless numbers in the classroom. Therefore, students are motivated to attend lectures and to participate actively.

My adviser Gray Calhoun has set an excellent example for me to learn from as he has been working on various projects utilizing modern computing tools for effective learning. These include projects on data visualization and social media, as well as developing an online open-source econometrics textbook to be made available free to the general public. With the arrival of new technology come new learning sources that challenge the traditional in-class college education, such as Coursera and edX. I believe that new professors should be able to take advantage of current technology by developing various tools to keep students engaged in learning. For example, instructors can now easily record lectures or tutorials in video format, and can work with the IT department to host the recordings on the central university learning system. This allows students to access them through personal smart phones or tablets. They serve as complements to the formal in-class learning and can accommodate students with different personal schedules.

For the introductory economics classes I taught, to stimulate students' interest in learning, I took full advantage of the multi-media equipment provided in the lecture room. For instance, before introducing the price ceiling and price floor concepts, I set up the projector and spent three minutes showing a Saturday Night Live comedy skit on the "Rent Is 2 Damn High" party for the New York state gubernatorial election. As expected, students enjoyed watching the clip and actively participated in the discussion in the following lecture. To evaluate student learning outcomes, I assigned homework on a weekly basis and created all homework and exam questions to make sure that they were relevant to lectures and other assigned readings. This also gave students the incentive to avoid skipping classes. I adopted several question formats (multiple choices, true or false, etc.) to measure critical thinking and to help combat cheating. Frequently, open questions were given to help students think beyond the textbook, for example, why the local movie theater did not charge different prices for different movies based on popularity.

The intermediate microeconomic theory class I taught is an important core class as it is the prerequisite for many upper level economics and finance classes at Iowa State. Many students at Iowa State face difficulties in this class because of weak training in calculus. To tackle this problem, a helpful math review is necessary at the beginning of the class and through recitations or labs during the semester. Through the entire learning process, I stress that students should know that the starting point for each topic is an economic phenomenon, which is then modeled utilizing mathematical tools. To help motivate students' interest, I assigned many readings from current news media related to topics introduced in class. For instance, I introduced a series of articles on the Japanese yakuza economy compiled by the New York Times that reported on the Japanese government's effort to make sure that the 2020 Tokyo Olympics would be yakuza-free in bidding for construction projects. While discussing the topic of market power, I joked in class that even the organized crime bosses in Taiwan knew something about linear pricing, since they ran their organizations like franchise. New members can join the crime group by paying a fixed franchise fee plus negotiable share of annual revenue, so they can use the boss's notorious title to terrorize a certain district in the city. Furthermore, to help students better manage the stress they had during the preparation for exams, I wrote four mathematical modeling questions of non-overlapping topics in the test, but students had the freedom to choose any three out of the four to work on.

Regarding my future teaching plan, I am interested in offering courses related to econometrics, finance and applied macroeconomics. I am particularly interested in teaching a class on economic forecasting, either at the undergraduate or graduate level. Both econometric theory and empirical applications will be covered in the forecasting class. Students are encouraged to form teams to work on forecasting projects using data and computer software, preferably the R language. Topics should include both applied macroeconomics and empirical finance.