Drew Vollmer

Teaching Portfolio

Objectives and Methods

My objective as a teacher is simple: to help students master the economist's toolkit. Students should build models and scrutinize assumptions, not passively accept the ones in the textbook. They should analyze models and discover their implications, not memorize key theorems. And they should apply concepts in new settings, not repeat cookie-cutter problems.

My teaching methods are designed to help students acquire these skills. I used five methods as the instructor for intermediate microeconomics in Summer 2018.

1. Emphasizing the principles of modeling

   Students notice what the instructor considers most important. In response, I emphasize the principles of modeling: the environment and assumptions, agents and their objectives, and the endogenous results we want to learn about. For example, I use the consumer model to illustrate the components of a model, then connect every subsequent model in the course (e.g. the producer model, monopoly) back to that common structure.

2. Applying concepts and reasoning to new settings

   Students often see an economic phenomenon in only a few settings, like how risk is usually applied to choices between lotteries. But to fully understand the phenomenon, students must be able to recognize when it is relevant in new settings. For instance, to understand risk and uncertainty, students should consider a new form of uncertainty, determine that it can be modeled as a lottery, and apply machinery like expected utility. I asked students to do this on their final exam, offering the new context of a firm facing an uncertain demand curve.

3. Getting practice and help in class

   After lecture, students often realize that they are confused and have to wait until office hours to ask questions. To give students more immediate help and feedback, I asked them to solve example problems as in-class exercises instead of presenting them as examples at the board. This helps in two ways. First, asking students to think through the problems promotes a deeper understanding than just copying notes. And second, the problems give me a chance to help students and know them personally. It would be more difficult to talk to every group in a large class, but the benefits of asking students to try the problems and discussing in groups remain.

4. Providing user-friendly background material

Mathematics is an essential tool in economics, but it should not be a barrier. To make math less intimidating in my course (which relied heavily on calculus and function notation), I wrote a primer explaining all of the math needed for the course in non-technical langauge. When possible, as for constrained optimization, I also included step-by-step guides to deriving a solution.

5. Giving the clearest explanations possible

   All instructors try to be clear in lecture, but doing so is difficult. Clarity is my primary goal when planning and giving lectures. I include not only the formal definition of concepts in my notes, but also plan a more colloquial explanation to accompany it. For an example of my attempt to unpack a difficult topic, see the set of notes I wrote on the Cho-Kreps intuitive criterion for PhD microeconomics. The course instructor incorporated part of the notes into his lectures, and several of my course evaluations mention that lectures and explanations were clear.

Diversity, Equity, and Inclusion

My teaching strategies advance diversity, equity, and inclusion in two ways. The first is to provide support for students who are less prepared for college, as first-generation college students and students from weak high schools might be. In-class practice gives me more time with students who need help, and I offer extra office hours—four hours each week during my course—to make sure that all students have a chance to ask questions. Background materials, like the primer I prepared on math, help ensure that differences in preparation do not snowball during the term.

The second way is to retain more students. Some students are put off because they do not match the current demographics of the department. My hope is that spending more time with students, through in-class exercises and office hours, will affirm that they have a place. Other students reject economics because the topics do not seem relevant: why care about optimal bundles but not inequality? I hope to engage more students by explaining how economic models can be used to study a vast array of questions. For example, students bored with optimal bundles might find a similar framework interesting when applied to college attendance.

Evaluations and Improvement

You can browse all of my teaching evaluations, including student comments, on my website. My ratings for each course are

- ECON 205 (instructor): average rating of 4.93/5
- ECON 705 (TA): 6 of 8 rated "excellent" (best), 2 of 8 rated "good" (second-best)

- ECON 701 (TA): 7 of 10 rated "excellent" (best), 3 of 10 rated "good" (second-best)

I still have room to improve as an instructor. The steps I'm taking include

- Completing the Certificate in College Teaching certificate at Duke. In the program, I took several classes on running courses and designing course materials. I also participated in a teaching observation program.
- Learning from course evaluations. One common complaint in my intermediate microeconomics class was that problem sets did not count towards grades. I learned that students want recognition for their work on problem sets, and I plan to make them count in the future.
- Revising course materials. I followed a traditional structure for my microeconomics class, but plan to tweak it to emphasize types of analysis, like Nash equilibrium, that are critical in economics but not required for the major. I also want to develop creative, challenging questions for problem sets that let students apply economic theory to new topics.

Experience

- Instructor, ECON 205D (Intermediate Microeconomics with Calculus), 2018

  Ran lecture and discussion, assigned problem sets, wrote and graded exams, and held office hours. 13 students (mainly economics majors).

- Teaching Assistant, ECON 701/705 (PhD Microeconomics), 2016 – 2017

  Ran weekly discussion sections and office hours, graded problem sets and exams, edited lecture notes, wrote exam questions, and gave feedback on draft exams. Coordinated with instructor each week about course schedule, problem sets, and questions on material. Coordinated with another TA weekly about discussion section content and grading. 701 had over 50 students (25 economics PhD students and 25 master's and other PhD students); 705 has 35 (25 and 10).

- Teaching Assistant, Regression Analysis (as an undergraduate), 2012

  Ran office hours and graded problem sets with one other TA. Met with faculty weekly to discuss problem sets and solutions. Course had about 60 students, mainly economics majors.

- Peer Tutor/Head Math Tutor (as an undergraduate), 2010 – 2013

  Ran office hours for calculus I/II and intermediate macro, tutored one-on-one for anything and everything (most frequently intermediate macro and multivariable calculus). Organized the calculus tutoring schedule as head math tutor from Fall 2011 to Spring 2013.

Possible Courses

My expertise is in industrial organization and microeconomic theory. I would be able to teach

- Industrial organization (graduate and undergraduate)
- Microeconomics (undergraduate and graduate)
- Game theory (undergraduate)
- Econometrics and statistics (undergraduate)
- Economic principles (undergraduate)