Teaching Philosophy

Haiyang Kong

At the University of Connecticut, I have served as a teaching assistant for Principle of Microeconomics and Macroeconomics and taught my own summer course on programming with Python. This semester, I am teaching two sections of the course, Statistics for Business and Economics at Eastern Connecticut State University, a small liberal arts college. These experiences of teaching students in very different environments has framed the way I think about teaching and learning in general. Regardless of where and what I am teaching, my goal is not only to efficiently convey knowledge, but also to help them to think critically and to find answers to their own questions. To accomplish these goals, I adopt the following strategies in my classes: connect textbook topics with real-world examples; use various teaching methods to account for different learning styles; ask open questions and organize group discussions to encourage critical thinking; and frequently collect feedback from students to create a student-centered learning environment.

I have found that students are more willing to work hard if they know why they are learning certain concepts. For this reason, I usually begin my classes by crafting real-world stories or conducting mini experiments to draw them into the thick of the learning experiences. For example, when I start the topic of interval estimates in my statistics class, I conduct an in-class experiment by assigning each of my students a number, and then asking them to estimate the average number assigned to the whole class after talking with two of their classmates. In this way, they have a better understanding of the variability of sample mean and the necessity of reporting interval estimates.

An important lesson I have learned from my teaching experience is that although using slides makes teaching easier, it also often makes learning more difficult. This is true especially for math and statistics related courses where repetition is essential. To give my students enough time to get familiar with the formulas, I always use the white board to present important definitions and examples. I have found that when I write these on the board, students have more time to write them down in their notes and so gain a better understanding of the class material. I also use online videos to enrich my classroom environment.

When giving lectures, I always strive to keep all of my students engaged. I have found that students often get distracted when they have difficulty following my lectures. To make sure that all of my students can keep up with the discussion, even when I am covering complex topics, I break down the question into small pieces, making every step very clear, constantly interacting with students and encouraging them to ask questions. Often, I will have active students and quiet students in the same classroom. Even when I cannot entice the quiet students to participate in classroom discussions, I strive to keep them thinking. For example, I design and distribute handouts that contain hands-on practice problems for them to work through in class in small groups. This way, students who are lost can learn from their classmates, and those who learn at a faster pace can enhance their understanding by teaching others. While students are completing in-class assignments, I am also there to provide prompt feedback, again keeping students engaged.

After taking my classes, I hope my students are not only able to use the economic and statistical tools presented in class but also to understand their strengths and limitations. After all, real-world situations are usually significantly more complicated than textbook examples and so require more critical thinking. To foster my students’ critical thinking skills, I usually ask open-ended questions and organize group discussions. For example, I used to break the class into small groups to discuss potential explanations for an unexpected coefficient estimate of a regression model. Since there is no “right answer”, students are more willing to share their opinions and are more comfortable in asking questions. As a result, they get a deeper understanding of regression models.

Lastly, I am aware of the fact that, every student and every class is unique, the same teaching method might work very well in one class but not in another. I believe that in order to create a more effective and collaborative learning environment, students must feel that they matter and that their views are taken into consideration. Thus, I frequently talk with my students and adjust my teaching pace when necessary. At the beginning of each semester, I conduct a survey to ask students for their background and their goals. This gives me a clearer picture of my students’ abilities which helps me plan the pace of my class. After the midterm, I usually conduct another survey to gather more feedback about the course. In that way, I can get their opinions on the difficulty of my class and to find the most engaging activities for them. Outside of the classroom, I not only reply my students’ emails in a timely manner, but I also keep an eye on each student’s performance on quizzes and exams. I reach out and provide supplement academic intervention to those who are struggling before it is too late.

While I am interested in teaching almost any economics or statistics course, I would say that my comparative advantage is in teaching technical courses like business statistics and mathematical economics. Given that I have taken the applied statistics sequence of courses from the Department of Statistics and the machine learning course from the Department of Mathematics, I feel qualified to teach rather advanced courses in machine learnings covering topics such as neural networks, support vector machine and principal component analysis. I also feel very comfortable teaching programming courses. I thoroughly enjoyed teaching a Python course this summer where my students developed a movie recommender system using Python. I have learned how to teach from many veteran professors, my colleagues and my students. I believe improving teaching skills is a lifelong process, and I look forward to the lessons that wait ahead.