My teaching philosophy has developed through my experience as a teaching assistant for multiple courses at different levels. The various positions I have held give me insights into how students learn and shape my teaching style. During the spring and fall semesters of 2013, I was the teaching assistant and course instructor of the undergraduate Introductory Macroeconomics at Renmin University of China. This course emphasized both macroeconomics theory and software implementation. In the summer of 2013, I was the teaching assistant for the summer course Environmental Economics for visiting professor Shanjun Li from Cornell University. This course introduced the use of policy tools for emission reductions and discussed the costs and benefits of various environmental policies. During the spring and fall semesters of 2015 and 2016, I was the teaching assistant for two undergraduate courses — Environmental Economics and Environmental Justice — at Duke University. These two courses made use of microeconomics and statistical analysis at the intermediate level to explain the role of the environment in the theory and practice of economics and incorporate real-world examples. The students learned about both economic frameworks and environmental topics.

My teaching philosophy is based on three pillars: expectation, interaction, and application. Expectation means both students and I have clear expectations about the course. Interaction emphasizes the active role of students in acquiring knowledge in the classroom. The application demonstrates my belief that students should understand how to put the knowledge learned in class into practice. All these pillars have been proved to be effective and successful throughout my teaching experience. I believe they also will guide me to become an excellent teacher in a variety of economics courses at different levels going forward.
**Expectation**

Students who are unclear about expectations can become frustrated and tend to resist learning. In the first class meeting, I clearly describe the class objectives and put them into the perspective of students’ broader academic and professional goals. For instance, when I gave a lecture for my macroeconomics class, I discussed the reasons why this lecture involved both search and match theory and focused on monetary models: search and match theories explain the trading process, and money plays a vital role as the medium of exchange. I also elaborated on the connections between the lecture and other models so that students would have a more integrated picture of the course. In addition, I provided guidelines about time allocation and the reading materials. I believe these sorts of guidelines are crucial for students to decide their learning strategies and maintain expectations throughout the entire class.

In the experience of being instructor and teaching assistant, in-class quizzes help me evaluate students’ understanding of the course materials and find the weak points that need improving. They also indicate how well students absorbed the course materials and whether our expectations about this course were met. Near the end of the semester, I provided extra materials outlining the specific equations, concepts and summaries to help them understand the whole course as well as prepare for tests. These materials reminded students of what they should master in this course, and helped them further understand the internal logic of the course.

**Interaction**

It is important that students and I can communicate with each other without any obstacles, both in class and out of class. I believe that interactions with students can not only motivate students’ learning interest but also serve as vital channels to receive feedback. I was a teaching assistant for Environmental Economics and Policy in 2015. In order to facilitate the interactions and engage students in the classroom to raise their interest, I helped conduct an experiment about cap-and-trade pollution permit programs to make each student play an active role in simulated permit tradings. We grouped students into “firms” which were allocated with an initial number of permits to emit pollutants. These firms could trade permits with each other to maximize their own profit. With different production capabilities, firms chose to be either sellers or buyers, searched the best deals, and traded with each other actively. The “ah-ha” moment came when students realized that their own profit maximizing motivations would lead to a least-cost solution to the pollution allocation problem, allowing
for greater pollution reductions at a given cost. Through these interactions, students could have a deeper understanding of the mechanism in cap-and-trade and figure out the role of tradings. Students observed how their classmates made decisions about price and emission while I was able to correct their mistakes and show them their decisions affected gains and losses accordingly.

I also encouraged my students to take advantage of my office hours. During office hours, I answered students’ questions and provided necessary guidance about how to master the course materials. Since not all my students had a major in economics, some of them were not familiar with using math tools to solve economic problems. When I encountered these students during my office hours, I first suggested the use of graphical representations instead of math to think about the intuition behind the economic concepts, and then I connected the information in the graph to equations. Finally, I asked students to explain the economic concepts in their own words. In my experience, this is an effective way to help students understand math-intensive content in economic analysis.

### Application

I believe applying the knowledge learned in class to practice is the ultimate goal for students. Regardless of the course levels, I always encourage students to apply theories, concepts, and models learned in class to discuss and solve real problems. For example, in being a teaching assistant of Econ 432 (Environmental Justice), I found that the most effective learning comes from connecting theoretical knowledge with real-world applications. In this course, I helped students design case studies based on actual policy scenarios of their choosing. Students each focused on a real environmental case and learned to assemble data, choose economic methods, and visualize research results using a set of tools. I meet with each group regularly each week to provide suggestions, discuss strategies and methods, and give comments. Through the case studies, students understood what factors affected residents’ disproportionate exposures to pollution and how to utilized economic tools on these factors to address environmental inequities. I expected that introducing such case studies in class could help my students master the knowledge in this course and apply the knowledge to their future careers.

In addition, I also emphasized that software plays an important role in knowledge application. In the environmental justice class, I recommended that my students could use ArcGIS to derive pollution distribution maps when providing evidence for environmental injustice. In the environmental economics class, I taught and helped students use either R or STATA to do empirical analysis on environmental evaluation. Some students complained
about the additional workload for learning software. However, I argued that the software skills learned in class were useful for other advanced courses they might take in the future or quantitative positions when they were in the job market.

Future Directions

Over the past few years, I have taken multiple opportunities to practice my teaching and receive feedback, both as a teaching assistant and an instructor. Given my experience and research interests, I would be qualified to teach courses, both at the undergraduate and graduate levels, in economic modeling, environmental economics and policies, data analysis, and statistical methods. I would also be qualified to teach more topical courses such as sorting models and discrete choices at the graduate level.