

## Teaching Statement

My essential goal in teaching is to enable students to perceive and explore the world reasonably. To achieve this, I help my students acquire knowledge, develop application skills, and raise their awareness of social issues. During the five years of teaching practice, I have gradually learned how to create an effective and inclusive learning environment for students with diverse backgrounds. As shown below in Table 1, this is largely reflected in the students' rising evaluations of my teaching effectiveness in the five undergraduate and graduate courses. My recent teaching experience in the course *Econometric Theory and Applications* provides the most up-to-date information below about my teaching methods and their effectiveness.

**Table 1. Summary of Teaching Experience and Effectiveness**

Course name	Level	Role*	Offering year(s)	#Students (avg.)	Evaluation(s) (out of 5)**
<i>Managerial Economics</i>	UG	TA	2018, once	43	3.9
<i>Intermediate Microeconomics</i>	UG	TA	2018, once	60	NA
<i>Financial Management of Firm</i>	UG	TA	2019, twice	45	4.1 → 4.5
<i>Time Series Econometrics</i>	Ph.D.	TA	2019, 2021	13	4.6 → 4.9
<i>Econometric Theory and Applications</i>	UG	TA	2022, twice	48	4.0 → 4.4
	UG	AI	2022, once	35	4.8***

*Note:* \*TA and AI represent the positions of “teaching assistant” and “associate instructor”, respectively. \*\*The evaluation scores reflect students' average assessments of my overall teaching effectiveness in each course. \*\*\*According to the [summary report](#), 25 out of 35 students did the evaluation, i.e., the response rate is about 71%.

### The Course and students

*Econometric Theory and Applications* is a high-level undergraduate course. Students should meet the prerequisite in economic theory and statistics. Students enrolled in my class, however, had diverse backgrounds. More than one-third of them transferred from community colleges; some others were returning students, part-time workers, or parents. One returning student even had two off-campus jobs and a baby at home to take care of! These students needed help to digest the theoretical part of this course as they felt uncomfortable dealing with math and statistics or did not have enough time to study.

This course also requires using the statistical software R to conduct regression analyses for homework. This requirement is supposed to help students build application skills that are highly transferrable in both academia and industry. I knew that many students struggled with using R when I was a TA for this course. To plan ahead, I conducted a background survey at the beginning of my class. It showed that over 60% of students had never used R before, and 20% of students did not even know R. So, it was pretty challenging to help them get through the application part of this course as well.

### Teaching methods and their effectiveness

*Flexible Assessment.* Students may perform poorly in some assignments or one exam simply because of stochastic bad health or mental conditions. This was not uncommon in my class, e.g., more than one-fourth of students had been infected by Covid or other diseases during the one and half months. Thus, I gave flexibility to students when assessing their performances. The assessment consisted of three parts: (1) real-time lecture quizzes, (2) weekly homework assignments, and (3) one midterm exam and one final exam. I allowed students to drop the lowest one-third of their scores on part (1) and miss one-fourth of the available score on part (2). Many students took these options due to either Covid infections or lack of time. I also

allowed them to make up a lower score in the midterm with a higher score in the final. As expected, most students who performed poorly in the midterm did perform better in the final!

*Multilayered Assistance.* As mentioned above, many students needed help with using the software R as they had never used it before this course. To assist their learning, I first provided them with practical guidance on how to install and lay out R using a 5-minute YouTube video. Then, I introduced several basic R commands in each lecture using concrete examples. In the following discussion section, my TA taught students how to apply these new commands in detail. I also showed them how to apply these R commands to one question for each homework. With this multilayered assistance, none but one returning student complained about using R. Nevertheless, he was also fine under my guidance during office hours. It turned out that students in my class performed better than the previous ones in exams, where we tested their abilities to read R commands and outputs to answer application questions. Another encouraging news was that in the last class survey, all the students self-reported that they knew how to use basic R commands to conduct regression analyses!

*Daily-life Examples.* Commonly, students are not comfortable with studying math and statistics. To get around this issue, I heavily used daily-life examples to illustrate econometric concepts. One essential concept is hypothesis testing which enables us to say something about the object of interest, e.g., whether a new driver is good at driving or not, based on observations like the one-month commuting experience of that driver. Almost all the students immediately understood that the new driver is unlikely to be good at driving, given that a car accident happened to that driver during a month. I could tell this from their smiling faces all over the classroom! The real-time lecture quizzes also helped me confirm their understanding of critical concepts. Sometimes, students raised their yellow cards for extended explanations as well.

*Awareness of Social Issues.* What impressed me the most was not the students' good performances but their shared interests in socioeconomic issues like the gender gap in income. I introduced this issue in the U.S. when we were learning the dummy variable, e.g., a variable with a value of 1 or 0 indicating whether a worker is female or not. Students expressed their sincere curiosity about this issue by showing me pondering faces at each corner of the classroom. One student was so excited that immediately after class, he told me it was a great idea to introduce the dummy variable using such an interesting example! So, I went one step further by guiding them to explore the reasons behind it in the following homework. Through this exercise, they quickly understood the meaning of an interaction term, e.g., the female dummy interacted with years of schooling. Hence, raising students' awareness of social issues became the most effective approach to attracting students' attention and boosting their learning in my class!

### **The Conclusion and courses to teach in the future**

Overall, I appreciated the effort and enthusiasm that my students and TA put into this class. Thanks to our close cooperation, we successfully built an effective and inclusive learning community for this course! After the final exam, some students sent their best regards to me. Several of them even decided to apply for graduate programs in economics or related fields and invited me to write recommendation letters for them. I look forward to teaching this course and similar courses like time series econometrics and program evaluation methods! I can also teach intermediate microeconomics and undergraduate finance, given my teaching experience and educational background in economics and finance.