Teaching statement

Teaching philosophy

I am an economist with a prior background in computer science and some teaching experience as a part-time instructor in India and as a teaching assistant at Caltech. My experience as a student, teacher, and researcher in economics has helped shape my philosophy for teaching economics.

First, I believe economics is best understood through the use of illustrative examples. A major reason why I was drawn to economics was because it gave me the opportunity to think about mathematical problems through the lens of a narrative. For my teaching, whenever possible, I intend to introduce and discuss problems through motivating examples, and reinterpret the results in the vocabulary of those examples.

Second, I believe it is useful to situate economic models and results in a general framework. I remember, during my first year microeconomics class at ISI Delhi, the professor was teaching competitive equilibrium and remarked how prices were just one way of redistributing goods in an economy. As someone new to the field, the remark made me wonder about other potential mechanisms and piqued my interest in the field.

Third, I believe it is useful to stress on the important ingredients of a model or argument as it is easy for students to get lost in the details. I have come across many students who do not quite understand the revelation principle and its application despite having solved numerous optimal mechanism design problems. I think emphasizing the key ingredients will help students attain a more robust and intuitive understanding of the theory.

Fourth, and this applies to teaching in general, I believe it is important for the teacher to understand the different needs and backgrounds of its students. For this, there must exist channels through which students can openly communicate with the professor. I was TA for a class in which the professor welcomed feedback, even anonymously, and at the end of the term, asked students for their feedback on specific elements of the course to prepare for its future iterations. I believe such flexibility, open-mindedness, and responsiveness is important to understanding the different degrees of technical training that the students might have. This knowledge can then help the teacher

design and teach classes in a way that is accessible and engaging for all students.

Teaching experience

I have been involved with teaching for almost ten years now through my brother's initiative to assist undergraduate students in India interested in pursuing higher studies in economics. As an undergraduate student in computer science, I attended his lectures on game theory and was immediately drawn to the field. Since then, I've been helping him by giving lectures, designing problem sets, and answering student queries on forums. More recently, I designed and taught a six month course in Mathematics and also developed the website econschool.in which hosts many free learning resources and is visited by an average of over 150 students daily.

I've been fortunate to have also accumulated a lot of teaching experience at Caltech. In total, I've been teaching assistant for eight quarters, which covered six different undergraduate classes: Econometrics (twice), Introduction to Economics, Introduction to Finance (twice), Game theory, Theory of Value, and Algorithmic Economics [teaching evaluations]. This diverse portfolio of classes has allowed me to learn from professors with a wide range of teaching styles and philosophies, and also experience very different class environments, with classes ranging from having mostly freshmen to mostly seniors, from having around fifteen students to over a hundred students, from being the sole TA to working with three other TAs, from having mostly economics majors to mostly computer science majors, from being completely in-person to being completely online. Each environment presented its own challenges and thinking through them helped me grow as a teacher.

My responsibilities as TA included conducting weekly office hours, grading homeworks and exams, and answering questions on an online forum. For office hours, I made sure to think carefully through the homework problems myself, even in cases where we had access to the solutions. Thinking through the problem beforehand allowed me to anticipate obstacles students might face and prepare explanations that would help them overcome those obstacles and enrich their understanding of the material.. For grading homeworks and exams, I took the initiative to inform and educate professors and fellow TA's about the platform gradescope which facilitates the process for both students and instructors. For the classes Theory of Value and Algorithmic Economics, I also helped with designing problems and writing down solutions. This experience was extremely beneficial in terms of learning how to come up with questions that can really test, and at the same time, enhance students understanding of the material.

Teaching interests

My training as a student and experience as a teacher has provided me the tools to teach a wide range of classes. In particular, I would enjoy teaching courses in microeconomic theory, game theory, econometric theory, and courses on topics at the intersection of computer science and economics, like fair division, auctions, and approximate mechanism design. At the undergraduate level, I would enjoy teaching courses, both introductory and electives, in any of the above fields. At the graduate level, I would be excited to teach first-year courses in microeconomic theory, game theory, econometric theory, and advanced courses in social choice, market design, and mechanism design.