

TEACHING STATEMENT
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I have been an assistant professor of finance at Caltech since August 2015. In each of the past two years, I offered two courses. The first course is *Asset Pricing Theory*. This is a Ph.D. level course designed to get students familiar with modern research in theoretical asset pricing. It covers topics such as arbitrage and pricing, mean-variance single period problems, basics of continuous-time finance, risk-neutral pricing, derivative pricing and exotic options, intertemporal consumption-based asset pricing models, information economics, and some recent developments in intermediary-based and behavioral asset pricing models. The class size is about 3 students each year—the average class size across all divisions at Caltech is about 7—and the students are Ph.D. students from economics and mathematics. The small class size allows for good interactions between the faculty member and the students.

The second course is *Behavioral Finance*. This course is offered to undergraduate students, master students, and Ph.D. students. It covers basic concepts and frontier research in behavioral finance, a large and active field that develops and studies models in which some agents are less than fully rational. The course discusses two building blocks: limits to arbitrage, which makes it difficult for rational traders to undo the dislocations caused by less rational traders; and psychology, which provides guidance on the kinds of deviations from full rationality we might expect to see. The course then further discusses a number of applications: asset pricing, individual trading behavior, the origin of bubbles, and financial crises. The class size is about 10 to 15 students each year. Most students are undergraduate students with diverse backgrounds; they major in natural sciences, engineering, and social sciences. Given this, the class is somewhat challenging to students at the beginning due to lack of training in economics. But with the help of problem sets that are by and large analytical and lecture notes that focus primarily on economic intuition, the students are able to master the class fairly well by the end. The popularity of the class has risen over time. Below are some comments from students:

- (1) “This is one of the most interesting classes I have taken at Caltech. You learn about finance, psychology, and some mathematical modelling.”
- (2) “I was shocked at how relevant the class was to industry.”
- (3) “This class is extremely interesting. Lawrence is an excellent professor and is always available to help you better understand the material.”

For my third year at Caltech, I will teach a new class, the *Introduction to Finance* class in the winter term. It is one of the highest-enrollment classes offered at Caltech to undergraduate students. For this class, I plan to cover two main areas in financial economics: asset pricing and corporate finance. For asset pricing, I plan to discuss topics like prices, risk, return, portfolio choice, CAPM, market efficiency and bubbles, interest rates and bonds, and futures and options. For corporate finance, I plan to discuss topics like security issuance, capital structure, and firm investment decisions. In addition, if time permits, I will cover some topics in behavioral finance and household finance.