

Teaching Statement

of Jason Ralston (PhD applicant for Fall—2017)

My experiences at UCI have allowed me to better define my teaching philosophy and opened my eyes to the learning process of students. Over thirteen quarters, I have taught probability and statistics, economics, econometrics, and, importantly, propositional logic and set theory. This summer I will continue as a teaching assistant in introductory microeconomics and advanced applied econometrics. My favorite topics to teach are probability, statistics, and econometrics, and my favorite class I have ever taught is introductory logic.

The first courses I taught at UCI were advanced econometric theory, probability and statistics. Responses from students indicated that, while many understood the material, some noted a tendency for the discussions to be written for those who already understood the lectures and had mastery over the fundamentals the class utilized. Only after I taught a course in logic did I understand how students prefer to learn when encountering new, mathematically dense topics. As I taught that class I realized that base-level concepts such as axioms need to be described intuitively and motivated properly. Sometimes a generalized proof of a method is much more illuminating for students than explicating many specific examples. That is not to say that examples are unimportant. But what the students in my logic course taught me is that fundamental understanding of a general concept is often the most useful information one can impart. From a general case, all specifics follow.

Since then, I have approached writing lessons in a particular manner. I use a combination of digital slides, worked examples, in-class projects, and homework to reinforce and expand on the material I observe when sitting in on a professor’s lecture. Circumstance dictates when concepts will be illustrated graphically or algebraically. These decisions are made after reflecting on students’ different learning styles and what has already been discussed in lecture. Frequently concepts which do not receive enough attention in lecture are expanded upon using proofs with supporting examples. During my lessons I take particular care in reading the room, checking for confused expressions, and actively calling for student questions.

The techniques I gleaned from the logic classes were immediately put to good use in the probability courses I subsequently taught. A student summed up my improvement best: “[Jason] really understands the material and responds to emails quickly. I learned more from the TA than the teacher.” This new approach to teaching not only improved student outcomes, but also added to my enjoyment in the classroom. There is a great deal of satisfaction I feel when a student announces “I get it.” I have learned to be confident and comfortable in my pedagogic capabilities and also how to engage the class with well structured lessons and a bit of humor.

Table 1: Summary of Teaching Evaluations

<i>T.A. was/had ...</i>		Logic and Critical Thinking	Post Logic and Critical Thinking	Difference
Competent	<i>Mean</i>	5.70	5.85	0.15
	<i>(S.D.)</i>	(2.27)	(2.85)	
Clear Presentation	<i>Mean</i>	5.25	5.88	0.63
	<i>(S.D.)</i>	(2.50)	(2.79)	
Responsive	<i>Mean</i>	5.78	6.13	0.36
	<i>(S.D.)</i>	(1.89)	(2.45)	
Integrated Lectures in Discussions	<i>Mean</i>	5.63	6.02	0.39
	<i>(S.D.)</i>	(1.79)	(2.54)	
Punctual	<i>Mean</i>	5.72	5.94	0.21
	<i>(S.D.)</i>	(1.91)	(3.07)	
Useful	<i>Mean</i>	4.84	5.84	1.00
	<i>(S.D.)</i>	(3.31)	(2.86)	
Quality of Teaching	<i>Mean</i>	4.95	5.85	0.90
	<i>(S.D.)</i>	(2.70)	(2.81)	

Observations

20

60

All scores on a 1-7 ordinal scale