

Teaching Statement

The discipline of economics is grounded in the scientific method: building intuition from the world around us, structuring that intuition with mathematical models, and testing those models using data. My goal as an Economics instructor is to inculcate in students the curiosity to understand the world and the ability to use the framework of economics to structure that understanding.

My fields of specialization are macroeconomics, monetary economics and time-series econometrics. However, during my time as a graduate student, I have had the opportunity to be involved with teaching introductory Microeconomics and Macroeconomics and applied courses such as Urban Economics and Energy Economics at the graduate level.

My approach to teaching places a strong emphasis on building intuition from first principles, creating a bridge of ideas from the simple foundations of economic behavior to complex economic phenomena. No economic model is an end in and of itself. Every model is a lens to understand strategic incentives that shape economic behavior. In my classes, I value developing an understanding of the cultural and historical context behind the ideas that shaped economic thought in addition to learning the subject material itself.

I believe that the cornerstone of undergraduate education is to develop the ability to structure our thinking and reason through logical fallacies. To this end, I like to develop in-class activities that demonstrate economic concepts. For example, in the *Introduction to Macroeconomics* class, I had the students simulate a market with some acting as buyers, some as sellers so they could observe how demand and supply curves came to be and how prices are determined by market clearing. These activities reframe the classroom as an environment where we are free to experiment with ideas and collaboratively engage in the process of discovery.

For smaller classrooms, I have relied on pedagogical approaches like flipped classrooms to use in-class contact hours for active discussion and collaboration. I put this into practice while teaching the Master's-level sequence: *Python, Databases and Big Data* and *Data Mining and Statistical Learning*. These courses are designed to equip students with computational tools to answer empirical questions in economics, drawing upon modern approaches from machine learning and big data analytics. Since this was often the students' first exposure to programming, I implemented a scaffolded learning structure. I designed review session modules that decomposed complex empirical research pipelines into manageable steps, building cumulatively toward a final research project: from data acquisition and processing to modeling and analysis. The efficacy of this approach was evidenced by the high quality of student capstone projects, many of which incorporated advanced techniques applying machine learning and natural language processing to answer economic questions.

These values have also shaped my approach to applied courses like *Energy Economics* and *Urban Economics*. These classes presented a unique pedagogical challenge due to the heterogeneity of the student body, which included not only economists but also students from law and public policy backgrounds. Based on my experience, to accommodate this diversity in preparation and learning styles, I would employ a multimodal assessment strategy in courses, utilizing a balanced portfolio of evaluations: timed exams to test technical fluency, assignments to ensure consistent engagement, and course projects that allow students to showcase creativity and research skills. Particularly in cases where students come from different backgrounds, it's important to allow for a degree of substitutability across modes of assessment. This flexibility ensures that a student can offset performance deficiencies in one mode, like timed exams, with their proficiency in tasks that reward persistent effort and creativity, like research projects. This also mitigates a lot of anxiety surrounding assessments and exams, putting the focus back on learning.

Teaching interests: My teaching interests are closely linked to my research. At the undergraduate level, I am prepared to teach the full suite of Macroeconomics and Econometrics courses. At the graduate level, I am equipped to teach the PhD Macroeconomics sequence, Time-Series Analysis, and Monetary Economics. Furthermore, I am eager to develop new offerings in *Applied Data Science for Economists* and *The Economics of Information*, building a bridge between statistical learning theory and economics.

Economics at its core is grounded in the scientific method: building intuition from real-world problems, structuring that intuition with mathematical models, and testing the models with data. My aim is to make this process vivid and engaging so that students carry with them both the confidence and the curiosity to use economics as a lens to better understand society and to make more informed decisions as researchers, professionals, and citizens.

