

As an undergraduate it was easy to get caught up in pursuing grades, however, in hindsight I learned most from those professors who managed to go beyond the confines of a syllabus and teach us to be autodidactic and ask the right questions. In fact, I chose to study operations research and pursue a job in academia thanks to such a teacher. This interaction convinced me that the opportunity to teach and shape students' world view is just as important a part of an academic's job as research.

During my PhD I was the instructor for an online course which introduced Masters students in Business Analytics to programming in Python and R. The course took place over six intensive weeks over the summer, and lectures were delivered via live video conference sessions. The objective of the course was to teach a basic proficiency in programming. Due to the compact nature of the course it was also important that students learn how to make use of online resources and to read documentation to ensure that they are able to continue developing their skills after the course completed. I struck this balance by making assignments fairly open-ended and exploratory to encourage external reading, for example analyzing player data after scraping it from the MLB website, yet providing detailed line-by-line feedback on every submission to make sure that the fundamentals were well understood.

Teaching electronically presented different challenges than teaching in person. One of my biggest concerns was that the fast pace of new material and lack of in-person contact would make it particularly easy for struggling students to feel isolated. To preempt this I set up an active discussion board where the students could learn from each other, and held electronic office hours to address questions about the material. Feedback after the course showed this was successful, and also highlighted issues to improve on in the future, e.g. some students felt that some of the material was not accessible enough.

During my studies I've also been a teaching assistant, most recently for a linear programming course offered to PhD students in their first semester by Prof. John Hooker. One of the features of the class was that all proofs and examples were developed by hand on a whiteboard instead of flashed in on a slide. This gave students time to absorb the material and, based on the feedback, was a welcome change in a semester that easily felt overwhelming. I continue to be aware of similar opportunities for incidental empathy when designing my courses.

With my background in operations research and optimization I would love to teach courses like logistics, queueing theory and mathematical optimization at the undergraduate, masters or PhD level. During my doctoral studies I have also completed minors in algorithmic game theory and machine learning, which will enable me to teach courses related to probability, business analytics and data science.