## **Teaching Philosophy Statement**

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My teaching approach focuses on bridging a relevant gap I observe in Economics: adapting the heavily abstract character of our discipline into concrete and intuitive applications. Roles played by economists are manifold, ranging from data scientists to political advisers; from faculty instructors/researchers to private consultants. In all of these functions, economists dedicate a large share of their efforts in managing data, thinking about causal linkages, and producing reports for plural audiences. Regardless of future positions, students must combine the unique conceptual tools offered by Economics with the empirical knowledge necessary to critically analyze reality, thus determining to what extent the theories we teach are applicable to real-world phenomena. Not only does this approach allows for a healthy feedback between my research (focused on empirical methods) and my teaching practices, but also reinforces to students the necessity of making informed decisions, based on solid theoretical and empirical foundations.

From my experience in teaching *Introduction to Macroeconomics, Intermediate Microeconomic Theory, Probability & Statistical Inference*, and *Applied Econometrics* courses as lead instructor over the past five academic years, I have learned that only a student-centered teaching process allows them to overcome the abstractions of our science and develop the tools to critically analyze current economic problems. And this process usually takes off from building a consistent relationship between students and an economist's main analytical tools: mathematical models, visual techniques, and critical writing. I notice that students feel extremely excited to learn more about analyzing real-world events and data, but are usually intimidated by the necessary mathematical and statistical tools that make these analyses possible. Thus, as soon as these courses begin, my goal is to have students rethinking their own relations with mathematics, reinforcing the view that variables, equations, and models are means to translate theories and ideas into palatable results.

For instance, my introductory course on Macroeconomics, whose audience usually includes first- and second-year students with undeclared majors, has the overarching goal of allowing them to intelligently read and critically interpret news articles, official reports, and policy proposals that involve macroeconomic variables. I focus on small projects throughout the semester, with the first being a reflection on how COVID-19 has affected their hometown's economy. With the added benefit of me getting to know the classroom community better, this experience helps them in learning how a public health problem can have deep macroeconomic consequences, whose effects are reflected in the large/small businesses they grew up observing in their cities. Overall, the main outcomes from this activity are not only having students starting an economic analysis from a place they are really familiar with, but also making practical connections with macroeconomic topics such as unemployment, economic growth, and inflation.

The other term projects involve having them work with macroeconomic data. At this stage, I focus on making students comfortable with managing data sets; calculating measures of economic growth, labor market activity, inflation, and environmental impact; and reporting their results in an informative way. Every piece

of data tells a story, and I encourage them to use their acquired skills and apply the basic concepts we study in class to unveil the stories behind these data. By combining these two pieces, they are in control of the information at hand, allowing for a critical interpretation of reality. No theory perfectly fits everything we observe, but these must serve as a guide to update our beliefs about the real economy.

I engage in these activities because I truly believe students can benefit from hands-on activities, regardless of the major field they declare in the future. Handling data of any kind is a highly valued skill that students will carry with them in private-sector or academic jobs. Helping them in climbing the first steps of this steep learning curve right at the beginning of their studies is a commitment I assume with great pride. And to reach this goal, I have adopted several different teaching strategies. From experience, I have learned that most students benefit from an "inverted classroom" approach when learning how to use statistical packages. By pre-recording certain applied lectures, students are able to watch the videos as many times as they want, leaving more time for classroom discussions and practices.

When teaching the aforementioned upper-division courses, I reinforce to students the necessity of using mathematical models as a means to translate economic ideas and hypotheses into applicable results. And, in the same way I do in introductory courses, I focus on project-based evaluations, allowing students to broadly explore their favorite topics within the discipline. The courses' workload heavily benefits from replications of journal articles, reviewing survey and official documents (e.g., U.S. Census, BLS data, and FED reports), and producing well-written interpretations of results. Furthermore, I train students not to restrict themselves only to cutoff quantities—such as p-values, statistical test results, and selection criteria—for decision-making. Rejecting or not rejecting hypotheses must be accompanied by knowing how these techniques are designed, and by developing the necessary intuition behind what statistical outputs show, students make their decisions in an informed way, without losing sight of critically analyzing the problems at hand.

I approach teaching Economics courses in this way because I strive to empower students in using mathematical, visual, and empirical tools to critically analyze reality. So far, student feedback has been remarkably positive, with my teaching evaluations having above-average scores at both within-department and within-course categories. Moreover, I have helped students in professional and academic applications by writing several letters of recommendation, and participating in two former students' Honors theses. All of these experiences at the University of Utah and Skidmore College only strengthen my commitment to an academic career focused on quality research, student-centered teaching, and meaningful service.

Finally, a last point on my teaching approach regards transparent and reproducible materials and strategies. Over the years, I have been benefiting from a diverse online community of educators within the Social Sciences whose syllabi, lecture notes, and evaluation methods are fully available online for their students and other instructors. Since Spring 2022, I have been doing the same, by making all teaching materials available on my Github page. All lecture content, source code, assignments, and other materials are fully available in order to maintain a transparent relationship with students, and to help other instructors in setting up their own course materials. Knowledge is a public good, and it should be made accessible to audiences beyond the current classroom community.

<sup>&</sup>lt;sup>1</sup>Some examples are Andrew Heiss (Political Science), Edward Rubin (Economics), Grant McDermott (Economics), Mine Çetinkaya-Rundel (Statistics), Richard McElreath (Anthropology), and Steven Miller (Political Science), among others.