Teaching Philosophy Nathan Mather

I have taught a wide variety of courses in my time at the University of Michigan, but the goals I set for my students and the guiding principles of how I approach each class stay much the same. For example, one of the strengths of economics is the broadly applicable technical skills students learn along the way. While this can be difficult or intimidating for many students, I have found that the right intuition and context can make technical skills more accessible and seem like an exciting and rewarding challenge rather than a bothersome hill to climb. Technical skills do little good without the broad qualitative knowledge to contextualize a brand-new problem and choose the right tools to find a solution. Focusing more on a conceptual understanding does require more difficult teaching and assessment approaches, but the payoff for students is well worth it. My teaching philosophy also recognizes that many of my students use these skills and economic insights to think about policy, business practices, or even personal actions. It is therefore crucial that I train them to understand where positive descriptions of the world end and normative ethical considerations begin, and how the two are sometimes inextricably linked.

Acquiring technical skills is an essential and beneficial part of learning economics, but students too often treat learning these skills as separate from learning economics. When I teach surplus and deadweight loss in introductory economics, I emphasize that we are not just doing geometry, we are making specific positive and normative claims. A lack of economic understanding makes these tools useless, and carefully constructed questions can test students' understanding of economics and not just geometry. This is also important in intermediate economics, where topics like utility maximization can quickly become too centered on the mathematical problem at hand. Rote memorization is a difficult way to approach these problems, and it sets students up for failure when they face new problems in a different context. To help students understand the why of each step, I will often explain concepts using multiple different examples or show how to approach a problem in different ways. A key component of this approach, however, is frequently checking in, giving students ample time to respond, and asking probing questions when needed. This helps to build an interactive and flexible classroom experience that is adaptable to each student's needs.

Another important aspect of teaching technical skills is a recognition that I will not be able to teach students everything they will ever need, but I can build the necessary foundation for their future career. This was a guiding principle for me when I designed R guidebooks for three different public policy courses. After 8 years of coding experience, I still frequently google new problems I encounter and regularly learn about new functions or packages. I was sure to give students an understanding of the fundamentals that facilitate learning on their own and answering questions that will inevitably come up. Understanding the basic syntax, how to read help files, or how to make heads or tails of an error message are fundamental skills that can be difficult to gain without guidance but are so powerful once mastered.

Being an economist is not just about acquiring math and statistics skills. It requires a broad and qualitative understanding of economics so that these tools can be applied to a particular problem. I was fortunate to have been closely mentored by Professor Jim Adams on how to do this effectively. In both "American Industries" and "The European Economy," students learned by reading a variety of sources such as economic journal articles, court cases, government documents, and more. While teaching technical skills often lends itself to an interactive lecture, this course style more often requires a true class discussion. Managing an active flowing discussion and ensuring all the important material is covered without devolving into a lecture requires extra care and planning, but my experience in these classes has shown me it can be an incredibly effective teaching style. Students learn to actually use their knowledge to break down a complicated subject and draw out insights from the same source materials they will use in their careers. Digesting this material requires that students draw not just on the new concepts from the class they are in, but on skills they developed in the core classes as well. One difficulty with this approach is the unavoidable fact that teachers also have a responsibility to assess student progress. While assessment is more difficult, it can be done effectively. In these courses I developed and graded free response and essay style questions. Some of these questions have clear answers tied to specific concepts, but many could be answered effectively in several ways. This tests students on their ability to communicate clearly and make an argument based on evidence. In these two classes as well as in "Introductory Economics" and "Ethics in Economics," we also assessed students using papers. Papers are a great way to simultaneously teach, through revisions and redrafting, and assess progress.

Finally, in all the courses I have taught, I take extra care to ensure students understand the ethical and normative implications of what they are learning. In "Introductory Economics," for example, I do not avoid the difficult conversations about what exactly economic surplus is. While this plays a role in every class I have taught, it took a front seat in "Ethics in Economics". For example, we emphasized the important point that assuming people maximize utility and are "rational" just means they have consistent preferences. It doesn't necessarily mean they are selfish. Assessing students' understanding of what is implied by a particular model or framework can be relatively straightforward, but this class also showed me the value in fostering and assessing student's ability to make normative arguments using short papers. A lot of policy work, for example, requires explicit advocacy where ethical normative arguments are a vital part of the job. I evaluate students on their ability to articulate their position clearly and without misrepresenting the economic evidence, regardless of the specific normative position they take. While I speak in more detail about how I foster an inclusive learning environment in my diversity statement, special attention to ethical issues in economics can make for a welcoming environment that shows how economics can be useful regardless of students' normative beliefs.

My hope as an instructor is to give my students a deep understanding of economics with practical skills and knowledge that will help them in whatever career they choose. While this is not always easy, I have been fortunate that the opportunities and guidance I received while teaching at the University of Michigan have set me up for success in my future career as a professor.