

A Humanist Approach to Professorship

Matt Hin
ALS6015

Last semester, I had the opportunity to teach an introductory calculus course with Tara Holm, a professor of the mathematics department at Cornell University. As her administrative aide for the course, I had grown to value the insight that Tara had about her students and her classroom. Her enthusiasm for teaching was infectious and I elected to help her revise the curriculum of the same course in the following months before its next iteration. When I had the excuse to interview a faculty member of Cornell University, I found our conversations were often framed by our experiences in the prior term but Tara's ideals rang true beyond the calculus context.

On Professorship: When I asked Tara about her experiences as a faculty member at Cornell University, she underscored the difficulty of balancing a flourishing academic career, one's nonacademic interests, and a happy family. She also reinforced that time management is the most important skill to have as a faculty member as all the frustrations of the profession stem from having insufficient time. Tara's top advice for me was to "protect your research time" as it is the main tenure consideration. She also advised me to "pay for as much as you can" for others to do the things you hate. In Tara's case, hiring a house-cleaner eased many responsibilities. She also emphasized that it was crucial to be selective about commitments and the importance it is to participate in ones that help answer questions like: "what are my career goals and what matters deeply to me?" and "is this going to help me learn about how the profession works or university works?" She recalled her time as the scientific director for ArXiv and while the position was important for the mathematical community, it was not a compelling enough position for Tara to continue to hold. There was an implicit understanding that the appropriate balance among these commitments was a personal choice but Tara's advice were rooted in a desire to preserve one's welfare and values in the face of a university expects much from its faculty. The career path that an academic faces is daunting, but Tara reassured me that professors are usually "flying by the seat of their pants."

On Service: Tara deeply values service as a part of her profession and considers it an important responsibility as a professor at Cornell University. By serving on committees like the Academic Records Committee, Tara gives back to the community of Cornell University by assisting the institution with student petitions. By networking with professional societies, Tara is able to connect her students with internships and opportunities. By writing opinion pieces and volunteering at schools, Tara serves the greater public through outreach and empowerment. She finds that these acts of service are not only rewarding to her, but more importantly also rewarding to the communities that she helps. Tara is driven to serve the various communities around her since she believes that academics owe a large debt to society for providing positions and training.

On Teaching: Tara's teaching begins with dedicating ample time to design the classroom around specific goals. She identifies not only the subject goals for the students but also larger skill goals such as critical assessment of assumptions. From there, Tara crafts her sessions around those goals-made-explicit. It was refreshing to see an educator confidently answering Bain's question "How will

I help students learn to learn?” in a principled fashion. Further, I realized the reason why I enjoyed my time working with Tara was because we both value student engagement in the classroom and sought to design the classroom around that core tenet.

This principle shapes her classroom and Tara acts as the classroom facilitator taking on a diverse set of responsibilities appropriate to each designed session. For instructional segments, Tara focuses on problems inspired by the student’s interests. She draws from medical models for her pre-medical students and production models for her economics students to encourage them to be invested in the calculus concepts introduced through these models. Tara cautions though that there is a delicate balance between a model that draws students into the mathematics and one that drowns them with it. In her experience, it is a good practice to focus the discussion on one or two parameters of the model. Tara complements these instructional segments with collaborative group activities, since students “learn best by doing, instead of [Tara] talking.” She considers it “human nature to be curious” and emphasizing this aspect in the classroom is important to keep students engaged in the classroom. This sentiment struck a resonant chord with me, in my experience as an instructor, my most engaging activities were always ones that asked students to collaboratively explore a model and experiment with its parameters. This small inquiry-based activity gave the students all the agency needed to form their own conclusions and feel invested in the material.

I asked Tara about her views on diversity in the classroom and she responded, “[Introductory calculus] is one of the most diverse classrooms.” Her statement was not entirely surprising for me. Entry-level classes are accessible to a large student population, but calculus courses are also a common requirement for programs outside of a mathematics major. These two aspects cement the reality that in a given introductory class, there will be students from vastly different backgrounds, interests, and mathematical experiences. In her classrooms, Tara would facilitate discussions so that every individual felt included and valued in the classroom. Furthermore, she acknowledged that her students at Cornell were always busy but never thought less of her students because of it. I understood her stance towards her students as a professional kindness, similar to Art Duval’s emphasis on respecting students “because they are people and not because of what they accomplish in the classroom.”

Tara is considered one of the best educators in the Math Department at Cornell by her students. The hour that I’ve had with her illuminates to me as to why she deserves the acclaim. Her most compelling attribute as an academic is her humanity and it shows with the time and effort she spends on her teaching, her service, and her academic collaborations. To Tara, being a professor is more than just the strength of her research or her pedagogy, it is a privileged position that provides an opportunity to express herself and act on her values. Having the chance to talk to her about her thoughts and experiences was an inspirational experience for me. I can’t help but eagerly anticipate our collaboration to revise the curriculum of the course we had once taught together.