The majority of my post-secondary education was taught in traditional lecture format; an artifact of the routine of lecture rather than the efficiency of lecture as a learning tool. When I began teaching, I spent hours developing PowerPoint lectures, as my predecessors had, to try to break down the material as much as possible. I thought the solution was as simple as explaining information more clearly. Regardless of how long I toiled over a lecture, I would always finish feeling incomplete. More often than not, both the students and I were suffering from cognitive overload. I finally retired the PowerPoint lectures, but not in defeat. I gradually spent less time on the intricate details of an arbitrary engineering design and spent more time on working through general design examples to connect theory with process. Today, I break up lecture as frequently as possible with these exercises, each catering to a different learning style. How a student incorporates knowledge into their memory is as unique as the individual, the content, and the context. This is my biggest challenge as an instructor: understanding how each student learns and how to engage them in their learning.

As a section instructor for the Environmental Engineering Field Session, I led several groups of 5-7 students through a lab exercise to demonstrate how bench and pilot-scale experimentation can be used to design full-scale water and wastewater treatment systems. This was my first experience independently designing and executing a class-session, but I had a unique perspective that helped me develop the coursework: I myself had been a student years prior. I remembered how nervous I was in the new space. Our previous lab experience was limited to *General Chemistry* where the experiments were simple, straightforward, and scripted. However, Field Session is meant to simulate the research environment. Students are guided through the experimental design and analysis, but the results and conclusions are entirely their own. Most students were falsely fixated on the idea that their grade depended on a single “right” answer. As an instructor, I wanted to harness the students’ nervousness and transmute it into excitement and passion to answer the question: how can we improve wastewater treatment? For the students that were frustrated with the lack of structure, I provided scaffolding. For the students that were driven but could not orient themselves, I provided coaching. For all students, I modeled how a researcher navigated the laboratory learning environment, which culminated in more confident students, achieving my learning objectives, and a memorable experience for all involved.

My second teaching experience was co-instructing a senior and graduate-level design course. *Water and Wastewater Treatment Unit Operations* is an example of a class that constantly shifts between big picture (i.e., treatment plant-wide scheme) and theories from all realms of science (i.e., chemistry, biology, fluid mechanics). Much of the design criteria is empirical, from over a century of sanitary engineering, that can be difficult for students to intuitively rationalize. There is an immense amount of material but the students are not able to filter, organize, or prioritize the information—let alone during a timed exam. Here, I learned the importance of aligning learning outcomes with assessment. Rather than emphasize a single design approach, I aim to teach students how to navigate digital and text-based resources to guide themselves towards a unique solution.

My favorite classes during my undergraduate had little to do with my degree specialty, but I was excited to attend every class and genuinely interested in learning the subject matter. Teaching and learning are two processes that feed and respond to one another and I hope that my teachers felt as accomplished as I did to pass their classes with confidence and enthusiasm. These classes were examples of good teachers making complex material accessible to any student, regardless of background or interest. I have many years ahead of me as a teacher and I look forward to learning more about my specialty, my students, and the science behind it all to solidify my own philosophy of teaching.