Teaching Philosophy

I believe that learning by doing is the most successful strategy to prepare students for their future careers. The primary role of a college professor is not only to teach background knowledge, but equally to demonstrate applied uses of this knowledge, both in the classroom, the real-world, and the laboratory. In other words, background knowledge in academia should always be delivered with an eye towards informing how one would apply that knowledge to solve specific problems. As students gain this knowledge in early courses, they should be given real opportunities to apply their knowledge to any problem they feel intrinsically motivated to solve. Thus, the mission of a teacher is not only to convey useful information, but to inspire students to own their educational experience through exposure to applied and practical experiences that capture the student’s imagination.

Classroom Teaching. My experience teaching online in the Spring 2021 semester has changed aspects of my philosophy for teaching large lecture classes. In my job application I described my preferred approach to teaching large lecture courses is to flip the classroom, so that background material is learned at the student’s pace outside of the classroom and time in the classroom can be spent working on specific projects that provide practical, applied, and instructor-guided experiences. I used this model in my online, asynchronous Brain and Behavior course (PSY2710) this past Spring. For some reason the at home production of over 100 short lecture videos for this class seemed more onerous than lecturing in person, but I am glad that I have these material produced with high quality and stored on Kaltura and Canvas for future use in a flipped classroom format. I taught this class again in Spring 2022, but in person. Learning from my prior experience teaching this course and responding to the concerns about the Omicron variant, I gave my students the option to take the Brain and Behavior class full asynchronous virtual, synchronous zoom virtual, asynchronous zoom, and in-person. This strategy proved highly effective, and students truly appreciated the wide range of options for learning the course material at the student’s pace and preferred context. I also have tried to make the writing assignment in this class personally relevant to the students by asking them to relate the chapter material each week to peer reviewed and science communication articles on a neural function or dysfunction of their interest. They complete two paragraphs a week and then combine all writing assignments at the end of the semester into a paper on their topic of interest. My teaching evaluations in both semesters suggest that both models and changes to the course have been well received.

The pedagogical training I’ve received over my career and my experiences teaching thus far have impressed upon me the importance of continued development of my teaching skills through self, peer, and student evaluation. For instance, I recently presented a Guest lecture on Neuroanatomy in my colleague Liz Conradt’s Developmental Cognitive Neuroscience course. Afterwards, a developmental student, Katie Wyant-Stein, emailed me with a kind email stating “I wanted to share with you how much I enjoyed listening to your lecture. While my experience with cognitive science and neuroanatomy has been informative, it was never a topic that I found very stimulating. However, this was not the case with your lecture. …You did a great job at making the information easy to digest, yet it still challenged my thinking. I was able to integrate the applicable information into my own research interests. I really enjoyed the various ways that we interacted with the material (i.e., using our bodies to conceptualize scale, question and answer, graphics etc.) and how we frequently revisited key concepts (i.e., interpreting neuroimages). … your pace was perfect for me. I was so tuned in that I didn’t look at the clock once during your lecture!” This positive feedback validates my current teaching style.

Small groups offer more opportunity to design experiences that allow students to apply their knowledge. I believe small groups should learn material and skills through real and practical assignments that result in learning general academic skills, like debate and peer-review. I deployed this philosophy in my current Neuropsychology course (Psy 5700/6700). In this course I featured a debate format in which students debate current controversies on cognitive neuroscience most weeks of the class. The debates were structured and assigned teams of students debated the evidence supporting the sides of a cognitive neuroscience controversy in class. In addition to reading and learning to critically examine various neuropsychological perspectives, I also tried a novel writing assignment based on the most helpful assignment I received as part of a class in graduate school. In lieu of a long paper writing assignment, I’ve asked students to peer-review a pre-print each week that was relevant to the debate topic. Students were responsible for reviewing this pre-print manuscript as if they were reviewing it for a journal. I believe this provides practice for a fundamental skill that will shape how students read and evaluate all published and unpublished papers in the future. Importantly, Pre-prints offer an imperfect paper that has not fully gone through the review process and will offer the best simulation of the peer-review process. My hope for these new features of the Neuropsychology class is not only to teach the content, but to help students develop skills that will be applicable throughout their career.

Mentorship. As a mentor in the laboratory, my job is to provide a collaborative environment where I can scaffold opportunities for mentees to learn, while still providing space and support for independence when applying their knowledge to specific research projects. I love the challenge and continual growth that accompanies mentoring students. I often grow just as much from mentoring as the student grows from learning. So far, I’ve thoroughly enjoyed passing on my knowledge to my graduate student, Martina Hollearn. Despite Martina just starting at Utah, I’ve been consistently mentoring her since helping her write an NSF GRFP application last Fall, for which she received an initial honorable mention and was awarded an NSF GRFP last Spring. My MD, PhD student Justin Campbell has also received a Translational Neuroscience T32 fellowship and applied for an F30 since joining my lab. I’ve encouraged all of my graduate students to give me constant feedback on my mentoring and I regularly show my appreciation for all of the effort they are putting into getting our lab started. When mentoring, I believe this sort of two-way dynamic is essential for providing a collaborative, respectful, and caring environment in which both the mentee and mentor can grow.