

Teaching Philosophy and Statement

I have always approached teaching from the perspective of teaching the way that I would like to be taught. However, my experience has led me to recognise that while this is a meaningful philosophical position, the majority of my students will not replicate my path into academia, and so this stance lacks the appropriate nuance and flexibility that their varied backgrounds and interests require. To date my classroom teaching has been in the biological sciences; a field from which students can follow numerous paths into the next phase of their lives. I see an analogous context within psychology programs, and it was in such a space where I noted that my educational approach needs to reflect the needs of students and their aspirations, rather than the approach envisaged by someone who entered academia. To this end, as I recognise that student grades often do not completely reflect an individual's broader context, I incorporate active goals and prior knowledge assessments in early lessons, which allow me to tailor later lessons to my cohort. I have found that when implemented alongside other active learning pedagogies (being mindful of access), I am able to meet students where they are and enable them to better engage with content and learn on their terms.

In the Classroom: Towards the end of my graduate program, I held an Associate Lecturers position at the University of Technology Sydney, teaching Neuroscience and Medical & Applied Physiology (MAP). In this role, I experienced the length and breadth of higher education, delivering both small and large face to face classes, as well as dealing with administrative duties and requirements. Neuroscience focused on developing students' understanding of the physiological basis of the nervous system by integrating fundamental cellular/molecular concepts of neurochemistry and synaptic transmission with broader systems-level content covering the senses, motor function, memory systems, theories of mental illness. MAP introduced psychophysiology to students and encouraged them to evaluate the connections between human physiology and health outcomes. Both were final year undergraduate courses of approximately 300-350 students from varying programs including biology, engineering, and psychology, and were taught in a lecture and laboratory class format. The Neuroscience laboratory classes combined neuroanatomy sections with theoretical sections to supplement the weekly lectures. While the MAP lab classes were mostly dedicated to a student-led psychophysiology experiment, the purpose of which was to provide instruction in psychophysiological techniques, as well as relevant research methods and designs.

Beyond teaching these classes, and most importantly to my teaching philosophy, I was involved in the Learning.Futures initiative, a university wide teaching update which focused on the practical implementation of flipped learning pedagogies, practice-oriented teaching, and authentic assessments. As part of this initiative, I redesigned the Neuroscience and Medical & Applied Physiology courses by combining traditional teaching modalities with technologically driven and collaborative alternatives, with the aim to deliver a more applicable and engaging learning experience. Across both subjects, I added online pre-semester content (i.e., short informational videos and associated non-assessed quizzes) that covered early topics with which students could prime themselves for the coming semester, and teaching staff could engage to evaluate pre-existing student knowledge. Similarly, I built short online non-assessed pre-lab quizzes that functioned as a content prelude for that week's laboratory and anatomy class. Finally, I switched the format of final exams from one that largely tested the memorization ability of students to a concept driven approach. This updated format required students to integrate their knowledge across multiple domains to answer complex multiple-choice questions and formulate long-form explanations of the neuroscience/physiology underlying real-world processes (e.g., getting hungry and deciding what to eat for lunch), and neurological disorders and their diagnoses (e.g., Parkinson's Disease).

Inside Neuroscience, I expanded the neuroanatomy section by designing two new classes and including anatomy identification flag exams in the course assessment structure. My aim in doing this was to give students more small class and hands on experience that would supplement their lectures. I also converted some early laboratory classes into discussion sections that allowed students to have a facilitated but largely self-directed conversation regarding their topic (e.g., neurodegeneration, and the connectome) for an online digital media project that I introduced. For MAP, I replaced the mid-term exam with a semester long case-study, in which students had to evaluate a patient and provide their rationale for diagnosis, as well as describe additional physiological information that would be useful. This assessment was built to allow students to incrementally complete the work as the semester progressed by actively integrating the weekly content. Overall, my involvement in this initiative not only gave me the opportunity to learn how to design and implement course content that would deliver engaging and applicable learning experiences, but also to personally engage in reflective teaching. As the initiative

carried over multiple years, I was able to use my own self-evaluation and feedback that I received from students to update and further tweak each course in the following semester.

Lastly with respect to the classroom, I previously taught in a continuation program for the medical school at the University of Notre Dame (Australia). This program provided academic support to 1st and 2nd year graduate medicine students who identified as indigenous Australians. In this program, I taught physiology, pathophysiology and biochemistry content that covered all bodily systems to a coterie of 3 students and engaged in individualized and small-scale graduate level teaching. This experience allowed me to better refine my ability to support students in actively directing their own learning. In addition, this work further cemented my stance in tailoring my approach to meet students' academic needs as the broader context of each of these students was unique, and so were their academic needs. Further, beyond the self-directed approaches, I also found that being available to my students via multiple modes was immensely helpful in encouraging them to be active in their learning, seek one-on-one help, and engage with me as their professor.

Beyond the classroom: During my training, I have been able to participate in workshops and work directly with learning designers to improve the courses I was teaching, my teaching capabilities, and learn how to leverage active learning and other practice-oriented and authentic teaching pedagogies. Participating in these workshops has helped refine my teaching approach, particularly when it comes to considering individual students' needs and how to align my teaching responsibilities with their goals.

In addition to my formal teaching experiences, I have been fortunate to mentor others during my doctoral program and as a postdoctoral scholar. As a senior graduate student, I mentored undergraduate Honors research students and more junior graduate students, working in conjunction with my graduate advisor to provide technical psychophysiological training (e.g., EEG data acquisition and processing methods), as well as academic guidance and feedback regarding the design of their experiments, their scholarly works, and open and ethical collaborative practices. As a postdoctoral scholar, I have again been involved in the technical EEG training of the lab's graduate students and research assistants for data acquisition, as well as data processing methods for the graduate students. Indeed, I recently led a team in participating in the EEGManyPipelines project, a large-scale collaborative project investigating how different analysts approach a given EEG data set and how analysis approaches affect the obtained results, and used this as an opportunity to deliver an interactive learning experience for the two graduate students on the team. During this project, our team regularly met to discuss each specific hypothesis we needed to answer, and I actively mentored the students on the possible analytical approaches and how to execute these approaches. In between these meetings, we each executed our chosen approach and then used the following meeting to discuss our thoughts on the process, any troubleshooting needed, and our next steps. In a similar vein, as part of my previous training efforts in the lab, I built tutorial content that covers all aspects of EEG techniques, including instructional videos that focus on the field standards of data acquisition and experimental set-up, and practical exercises targeting data processing methods. Overall, I truly value and have enjoyed my mentoring experiences, and have been pleased to write letters of reference for a number of these students and see them pursue graduate studies as well as careers in healthcare, academia, and industry. In a final note relevant to both mentoring and advancing equity in academia, my experience as a first-generation student led me to readily learn the institutional infrastructure available to support students. I found that students are rarely aware of services (e.g., the Office of Disability Resources) and specific programs (e.g., the FIRST Together Program) that are available and having someone who knows how to access and navigate these services can be invaluable, especially for those who lack generational knowledge.

As previously mentioned, I have experience in teaching cellular, molecular and systems neuroscience and applied physiology/psychophysiology, and I am interested in courses in this space. Further, given my research foci I would be additionally interested in and prepared to teach courses in introductory, biological, and developmental psychology, as well as cognitive neuroscience, and/or research methods. I hope that my teaching philosophy and experience aligns with your departmental hiring goals and wish to thank you for your efforts and time in reviewing my application.