

When I think about the possibility of teaching in a tenure-track position, I think about the many ways that I can interact with undergraduates both inside and outside the classroom. This past year, as a visiting professor at Williams College, I have taught students in large lecture settings, small seminars and in the laboratory as independent study and thesis students. Even before my arrival at Williams as a visitor, I pursued opportunities to teach undergraduates and work closely with them within the hands-on science setting.

I am deeply passionate about teaching and, specifically, teaching at a liberal arts college. I sought opportunities to improve as an educator throughout graduate school, including earning a Certificate in College Teaching, a program offered by the Duke University Graduate School. It allowed me to frame my philosophy and focus as an educator – keeping students at the center of the classroom – reflecting my previous experiences as an undergraduate. At Williams, I have continued seeking these opportunities for growth. I attend weekly lunches with other young faculty and discuss our experiences as teachers, mentors and community members at the college. I attended a Teaching in the Diverse Classroom weekly seminar during Fall 2014 and it was an important conversation with other professors at all ranks as well as the deans and other staff committed to increasing and supporting diversity at the college. With 3 other pre-tenure faculty members, I did a Research Roundtable in Spring 2014, discussing the successes and obstacles related to translating our scholarly work to classroom experiences in small seminar classes. This fall, I am participating in a Writing Roundtable with 3 different pre-tenure faculty members, encouraging one another to commit to scholarly work and provide feedback for each other's efforts.

Through my experiences as a teacher and pedagogical training, I have seen the benefit of student-focused and learner-guided techniques and I plan to use these tools to my advantage as a teacher. I am now armed with an arsenal of engaging techniques that achieve learning objectives, and keep the students' needs at the forefront. Introducing undergraduates to the academic world of science and rigorous hypothesis testing is one of the joys and challenges of teaching neuroscience. Below is a summation of each of the classes I have taught and of my pedagogical approaches to making neuroscience accessible to students at various levels of exposure.

In Introduction to Psychology, one of the largest classes at Williams, I understood the ways in which large lecture classes can be obstacles for student participation. Gauging student comprehension of new material can be difficult, but new technology, such as the group survey technology PollEverywhere, offers solutions. Students were able to answer multiple-choice questions about lecture material using text messages or their laptops and simply and anonymously observe see their own comprehension level in real time. I also assigned nightly reading questions for the students to use as a guide in their reading prior to class. Given the benefits I observed from the use of this technology and the reading questions, I intend to continue using these techniques to offer interactive participation opportunities to students in large classes as I move forward in my teaching career.

In Introduction to Neuroscience, a 200-level course, I learned about teaching a group of students who have had varying levels of preparation for the material, ranging from zero exposure to extensive knowledge of cell biology. I included new and classic experiments in my lectures to highlight the science in more detail than is provided in standard textbooks. I think it is important to introduce students to the scientists who produce the data that fills

the pages of their textbooks. During my class sessions, I frequently pause lecture to allow students to talk to one another about the research and its relationship to our prior lecture topics. I also worked with the laboratory instructor to develop an appropriate animal behavior lab. A lab session on rat play behavior provided the chance for students to handle live animals, collect data on their behavior and learn to assess and interpret their results.

Small seminar courses are a privilege to teach because they allow more personal contact with students. In my upper-level course on Psychoneuroimmunology (Brain, Behavior & the Immune System), I used team-based learning organization for each class session, a system that is centered on active learning. At the beginning of class, each student answered reading comprehension questions online and then again in a discussion group. Most students were able to answer the questions easily if they had prepared for class, which led to high level of preparation and thus, participation from every student throughout the semester. Because students worked together and relied on each other, they prepared more for class and were more engaged during lecture and discussion. I often asked students to imagine possible future experiments derived from the papers they read for class. These experiences led directly into the empirical project component of the course, and the students successfully designed and executed several exceptional studies. For example, one of my thesis students began her thesis project in that class, examining the role of a particular inflammatory signaling molecule on a hippocampal-dependent task called context-object discrimination. Her group's results led her to propose her current honors thesis project.

Mentoring students directly is a critical aspect of a liberal arts education, and I have had the chance to mentor many students, both at Duke University and at Williams College. It has been valuable to see the benefits of working side-by-side with an undergraduate and of teaching by example. When undergraduates first experience bench work in the laboratory, there is a sudden realization about the sometimes repetitive nature of "doing science." Demonstrating that day-to-day efforts are just as important as the final results is an opportunity to encourage a new generation of academics. While each student is different, they offer clues about their independence and their personal challenges as they work. I have learned to interpret their behavior when they are still not confident or experienced enough to speak for themselves. It has been rewarding to witness their transformation into thoughtful scientists by the time they write their final thesis, independent study paper or publication.

Based on these experiences, I am capable of teaching many courses in your department: Introduction to Psychology; Brain & Behavior (Introduction to Neuroscience, such as NSB 100); Statistics; Research Methods; Research Methods with Animal Models; Learning & Memory; Brain, Behavior and the Immune System; Hormones and Behavior; and a course on Glia in the Nervous System. I have experience in introductory courses for students beginning college as well as capstone courses for students finishing their undergraduate careers. I have learned so much from my experiences at Duke and Williams and I hope to use those experiences to succeed in a tenure-track position.