

My choice to pursue a science career was sparked by one outstanding Plant Physiology class that I took during my sophomore year of college. The Professor who taught that course changed my approach to Science, and had a profound impact on my life. This has led me to the obvious question, ***how does one design and deliver a curriculum that transforms the way students view Science?*** As a graduate student at Cornell I spent five semesters teaching in classes that ranged from Foundations in Biology, to specialized lab classes in Plant Biotechnology, Plant Physiology, and Plant Evolution. From my experience in the classroom I have extracted a few core principles that apply quite broadly to working in the University classroom setting.

Here are the core principles that comprise my **Teaching Philosophy**:

First, and foremost, I have learned that it is critical to keep your students engaged. This is a lesson that I learned from teaching Botany at nine in the morning with Professor Karl Niklas. Karl would do just about anything to keep the students' asking questions, from lighting peanuts on fire to reciting poetry by heart. While my strategies may be a bit less flashy, they are still highly effective. I am a firm believer in engaging the classroom with interactive small group or classroom discussions (depending on the size of the class), white board problem solving sessions, and live demonstrations.

Second, I truly believe that students can be motivated by more than just grades. I help my students identify a purpose for why they are in my classroom and use that purpose to be self-motivated. I have done this by connecting my course material to current events and linking the skills that I am teaching with their future career goals. Plants are amazing, and when I am lucky, my students develop a passion for the subject matter itself.

Third, I challenge my students on a wide range of levels. In my experience, one of the most satisfying aspects of being a student, is learning how to push through difficult questions that make you reassess the boundaries of your intellectual capacity. On the flip side, one of the most frustrating experiences that I have had as a student was being presented with problems that I was not prepared to handle. My goal as a Professor is not to identify the best student in my class, but to have every student grow and be challenged. Thus, I believe in designing exams and assignments that can "stretch" with the students' abilities, and rewarding students for improving throughout the semester.

Finally, I am committed to creating an atmosphere of inclusivity within my classroom. Fostering an environment where every student feels secure and confident to have an open dialogue about thoughts and ideas is critical to ensuring a productive learning space.

Mentoring the next generation of scientists: Research and mentorship have been tightly interwoven throughout my science career. I have been actively engaged in training students and researchers since I graduated college (in 2007) and started working as a lab manager at the Arnold Arboretum at Harvard University. This job involved training visiting researchers in core molecular techniques. The experience that I gained in communicating complex concepts across language and cultural barriers during my year as a lab technician has translated into numerous, successful mentoring interactions during my PhD and postdoc. I have had the privilege of working with five outstanding undergraduates since I started my PhD. For all of my students, I emphasize the importance of developing their technical and intellectual skillsets so that they have the power to ask their own questions and design their own experiments. This approach to mentorship has been highly effective, most of my students have continued onto pursue their own careers in Science.