

Teaching brings me the same satisfaction that gardening does; a sense of guiding, promoting growth, and caring for a project to ensure success. The end goal in gardening is a healthy plant with tasty vegetables, herbs, visually appealing flowers, or an aesthetic plant structure. My goal in teaching is for the students to have an increased understanding with new concepts and knowledge delivered during the class so that they can use that knowledge in their future careers. Both processes include paying attention to diversity in the population, making sure to deliver the right material, and the ability to recognize when the process is failing or differing needs are present in the classroom.

My classroom has always been a place in which I encourage conversation and inquiry from students. Often this accomplished through periodic discussion questions posed to the class for small groups to work on, before bringing it back and investigating the topic together as a class. I have noticed that this not only encourages engagement by more students, but also provides a more informal, more relaxed way to ask questions about the material and stimulate critical thinking. For example, one of my most recent discussion questions, “do you think there could be aurorae in the atmospheres of Mercury, Titan, or Venus?” sparked 10 minutes of group deliberation amongst the class about the structures of these planets as well as their potential to have a magnetic field and competent atmosphere to support the formation of aurorae. I find these student-centered class techniques to be very helpful in engaging—and maintaining interaction— across the classroom in order to promote a healthy learning environment. Additionally, I find it extremely advantageous to provide ample visual examples of the processes being discussed, particularly when it comes to geology concepts. These visual examples include photographs of outcrops, 3D printed models, hands-on data exploration within a Geographic Information System (GIS), and field trips (or virtual field trips). Technological innovations allows classroom activities to go beyond traditional chalkboard lecturing, letting students to be the main drivers of their learning and instructors to be facilitators of that learning environment.

Incorporating technology-driven learning methods into GIS, remote sensing, and geology courses enhances student learning. I find that the “aha!” moments in my classroom often comes during these geological visual learning exercises, due to the hands-on nature of the science. Field trips, or virtual field trips, are a great way to engage the student in thinking outside of their normal day to day classroom environments and show them science-in-action. Accessibility to geology is a burgeoning topic; I find that disabled, non-traditional, and underrepresented groups are often turned away from geology because the necessity of field work built into most programs. I believe students can glean valuable information from virtual experiences and alternatives to field camps, such as a geophysics or satellite digital mapping courses. In these field camp alternatives, work is done at the university and students can travel home in the evenings. These programs can also relieve some of the financial burden of attending a field camp, a key factor in whether a student joins a geology program, disproportionately affecting non-traditional students.

My teaching experiences have been rooted in introductory geology labs, structural geology labs, geology field camp, and assorted guest lecture opportunities. I enjoyed teaching intro geology labs my first year at NC State, and was able to share my passion for the geosciences with some of

the students who had not yet declared a major. I like to think I played an influential role in their decision to pursue geology as a major. Through my next three years I had those students in assorted classes and was able to support their development and subsequent graduation from our program. Some of them occasionally would stop by my office for advice on certain classes to take or just to chat about the most recent SpaceX launch or Mars InSight seismometer results, for example. I took on three undergraduates who were interested in research to help me with some mapping on Mars and fieldwork on the North Carolina coast. One went on to intern at NASA, and another at the Smithsonian and subsequently attending graduate school at UAF Fairbanks studying planetary geology. Watching students grow, become curious scientists, and eventually graduate to go on to jobs or graduate school is something I treasure about the time I've spent in graduate school. I enjoy helping students achieve their ambitions, whether it be graduate school, an internship application, job materials, or everyday advice, should they ask. This comes back to the satisfaction I get from gardening, promoting and simulating growth through careful attention to each plant. Witnessing students' success really drives me to become a better teacher and understand the process of learning so that more students can have the same outcome in their education.

My student-centered classrooms are built to engage and promote discussions about the materials in order to promote a healthy learning environment within my department and university. This approach has worked well for me so far, but that's not to say I am content with my teaching ability; I always strive to improve my techniques and delivery of material. I earned the Outstanding Teaching Assistant Award from the National Association of Geoscience Teachers my first year at NC State. This award is based on a nomination by my department head and built upon by student feedback received in class. My student reviews throughout my graduate career have averaged in the 4–5 (on a scale out of 5) range for each criterion that NC State asked the students to grade instructors on. My teaching strategies are something I am always looking to improve upon and using student feedback from course reviews can give insight into which areas I am weak in. My first year teaching Structural Geology at NC State was a challenge, but my commitment to improving upon my teaching strategies led me to utilize student evaluation feedback to identify areas of improvement and devise practical solutions to implement in the following courses. The next year I had a little more glowing results in the student feedback: "One of the greatest TA's ever. Corbin was extremely nice and helpful. While initial impressions are harsh, he is by far the most considerate and understanding TA in my college career." While this comment provides a little insight into my teaching effectiveness, it does not provide the full picture, therefore I can provide full teaching evaluations upon request including student comments and ranking of the instructor.