Teaching Introductory Geoscience Courses in the 21st Century

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The main focus on my teaching is introductory courses: Introduction to Physical Geology (Geology 101), Earthquakes, Volcanoes, and Civilizations (Geology 107), and Introduction to Environmental Geology (Geology 108).

The students that enroll in my classes mainly consist of freshman and sophomores with some junior and seniors. Many of my students are taking the course as a part of their general education requirements and may not really understand what geology is or range of topics it covers. As a lecturer I strive to help my students discover the world around them, to be more comfortable with science, and to become critical thinkers as they move forward with their lives. Before taking one of our introductory courses many students have not thought about how geology is directly connected with their everyday lives. My hope is that after my course they have better appreciation for how truly connected we are to

Introductory classes are essential to our department since they introduce students to our department and give future majors a foundation in the fundamental concepts of geology. Throughout the quarter I talk about the different areas of work and research that our faculty and alum are involved in and where in the world they are doing this work. I feel this not only makes the topics we cover in class more relevant to the student but also helps them imagine how a degree in geology could become a career. Our courses also serve the university by exposing the students to a broad range of topics. It is beneficial for all students to have a basic understanding of geology to be able to better serve their future careers.

The features of my class have changed over the years but my goal for my students, department, and universities have not. Presently my courses feature class lectures consist of powerpoint slides, drawing concept sketches on the board, demonstrations, class discussions and problem solving activities (large and small group). Outside of class time, I rely heavily on reading and online resources, such as our textbooks companion website, videos, and other websites, when assigning homework to help illustrate our concepts from class and how these relate to the real world. When I can, I assign homework that gets my students to explore our campus and begin to recognize how geology is truly all around us. The goal of my features is to educate and help my students and the community to understand how science and geology are integrates into their lives.

Is it working? I believe it is working due to the comments from students, overall class grades, and strong enrollment numbers in our introductory classes. The university has highlighted our programs and faculty many times as a success in education. All these factors point to our program being successful but there is always room for improvement and growth.