

PHILOSOPHY OF EDUCATION STATEMENT

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Teaching is a many-splendored thing. It involves a dynamic relationship between the students and the instructor, one which ideally involves mutual trust and respect, and whose success requires a shared effort. The impetus for that effort must originate with the instructor. As a teacher of adult learners, one is tasked with presenting a wealth of often mundane material in memorable, interesting, and –let’s face it– entertaining ways. However unrealistic it may for an instructor to try and be all things to all people, I believe it holds true that the largest number and greatest variety of adult learners can be reached by utilizing a variety of tools, techniques, and approaches.

When I wish to engage students in challenging material, I strive to make the lesson as interactive as possible. Early on in my teaching, I fell into the trap of trying to convey minute details of earth science topics in my classes, with the notion that if I left anything out I might fail to properly inform and prepare my students for their future studies. Ironically, I soon found that I was losing much of my audience through a one-way communication and information overload. In order to present material in memorable ways, I have found it much more important and effective to forego the minutiae in favor of the main points. In doing so I have been able to get students involved and invested in the lesson, by posing questions for group discussion or activity and letting the students do their fair share of the talking. In particular during my classes, I often held group activities in the vein of a “picture of the week” idea, with students analyzing and discussing scientific plots of real data, maps of ocean bathymetry, photographs of geologic features, etc. pertaining to the lectures, which always got them thinking and participating. In-class demonstrations have also proved effective, especially when students come to the front of the room and participate directly. Occasional guest lectures have been very engaging in my classes, including so-called “virtual visits” by well-known journalists and scientists via Internet technology. Lastly, I have found that laboratory exercises and field trips are invaluable, as they provide students hands-on experience with the “tools of the trade,” from rock hammers to computers, thermometers to GPS units, microscopes to mass spectrometers, etc. I hope and believe that this varied approach helps my students, with all their varied learning styles, to get the most out of my instruction.

Student evaluations of my teaching have been consistently good-to-excellent, on average about 3.7 out of 4.0. My strengths, according to the evaluations, are my ease in speaking in front of a group, my wry sense of humor which tends to help certain concepts stick in memory, my responsiveness to questions, and my desire to make sure everyone understands the material. Students in my classes regularly recommend me to others, and I strive to ensure that students enjoy my instruction as much as I enjoy instructing them.

My first-hand teaching experience is mainly in small, liberal arts colleges, and that is exactly the setting where I envision my ideal future. I am very comfortable in the liberal arts collegiate environment, where I have thrived and enjoyed the personal atmosphere that comes with small class sizes. It seems the most natural fit for me, with the focus on education and student involvement in research concomitant with four-year undergraduate institutions. I feel that I could be effective in larger

universities with larger class sizes as well, though the focus on research at larger universities would likely prove a challenge for me. Another setting that would hold my interest is that of the community college. At a community college, students tend to embody a much wider range of backgrounds, interests, goals, and personalities than at most four-year institutions. My experience with such student groups is limited (the closest example is the small but diverse group in the Global Regional Geography course I taught at Springfield College in Summer 2005), but I feel my teaching skills would flourish with such a variety of students. However the lack of research opportunities at a community college would likely prove a bit frustrating to me, as I would like to continue research in some capacity.

My research focus and area of specialty is climate change. It is here that my mind truly finds its home, its workplace, even its playground. I am particularly interested in paleoclimate, the workings of the climate system before recorded history, which is studied through analysis of proxy archives such as ice cores, tree rings, ocean sediments, corals, and as in the case of my research, carbonate cave stalagmites. In terms of geographic location, my dissertation research is focused on the North Atlantic, and my specimens are from caves in Bermuda. Over the past few years I have established a good working relationship with several scientists at the Bermuda Institute for Ocean Sciences (BIOS), an education and research institution which offers numerous opportunities for undergraduate student involvement. I hope to be able to translate this relationship into an ongoing educational program at BIOS, focusing on geology, climatology, and oceanography, that my future students can capitalize on.

My love for outreach and education, of Earth Sciences in particular, first blossomed when I co-founded a student-based environmental action group as an undergraduate. This led to my career in academia, studying and teaching the workings of the natural global environment. Throughout my teaching experiences in graduate school and later as an instructor at several wonderful liberal arts colleges in Massachusetts, it has become absolutely clear to me that Earth Science education is my calling. I am endlessly fascinated by and excited about the Earth system, and I thrive on human interaction, on consistent creativity, a daily exchange of knowledge and ideas. To me there is nothing like the satisfaction of successfully conveying a new concept to an enthusiastic group of students. My ultimate goal remains to be a tenured college professor at a small liberal arts college, to teach what I love and to never stop learning.