

I believe that at the core of all successful teaching in atmospheric science is the ability to convey the excitement of the subject to students in the classroom and in the field and thereby instilling in students a desire to learn more about the natural world. This requires an emphasis on the Earth and atmosphere as a dynamic system about which we still have an incredible amount to learn. In this context, basic skills and principles in atmospheric science are taught as tools with which to scientifically address problems and to critically assess the existing state of knowledge, rather than as part of a final set of facts that students are merely expected to memorize for a grade. I think this approach is essential both for attracting majors to the science, and for developing in non-majors a greater awareness and appreciation of the natural environment.

I feel that the most effective teachers engage students by asking questions in the classroom, incorporating innovative labs and challenging problem-solving projects, encouraging peer-to-peer interaction through group work and study, and including a wealth of real-world examples of the principles being discussed. I recognize the central importance of the teacher's approachability and accessibility that are crucial to developing an environment that emphasizes discussion about science, and becomes a mutual learning experience rather than a distant monologue. This requires an important time commitment outside the classroom to meet and interact both with students who need extra assistance, and with exceptional students who could benefit greatly from potential research opportunities. My perspective on teaching has been strongly influenced by my interactions with outstanding teachers at both the small undergraduate meteorology and environmental science departments at Cook College of Rutgers the State University of New Jersey where I obtained my B.S. degrees, and in the large and diverse graduate research program in earth and planetary sciences at the University of California Santa Cruz (UCSC) where I earned my Ph.D.

As a junior faculty member at UH Manoa I have been able to successfully implement well established education strategies in the classroom and the field. These educational techniques are built on my experience in an education research program through the UCSC Center for Informal Learning and Schools (CILS) as a Graduate Science Fellow. Through this program I studied educational theory related to science education and education at the university level and conducted my own science/education research project. I feel that this experience has provided me with exceptional tools and resources for teaching and developing science courses in a variety of situations including large lectures for non-majors, small upper-level major classes, and labs or field courses. As a result of my experience as a teacher, student, and researcher, I am confident in teaching courses that range from introductory to advanced targeted at students from undergraduate through graduate levels. These classes include introductory meteorology and climatology, introductory cloud physics, introductory atmospheric thermodynamics, introductory

environmental science, advanced cloud physics, meteorological instrumentation, satellite meteorology, meteorology and culture, and global climate change.

Through participation in outreach activities I have the opportunity to act as a role model to young women and young women in minority groups. As the founder and Chair of Expanding Your Horizons – Hawaii, Hawai'i's first and only EYH event, I have the ability to organize and execute my own “Women in S.T.E.M.” event each year. My interest in women in science events began as a workshop leader in the annual Expanding Your Horizons conference held at UCSC (four years) and the Sally Ride Science Festivals (two years). Through those programs I developed and presented a variety of hands-on workshops. This experience allows me to guide the mentors and presenters that participate in my own annual EYH – Hawaii event. Overall these experiences have taught me how to interact with and inspire young women to enjoy and pursue careers in science. I feel that such programs and other community outreach projects I have participated in are extremely influential in attracting students, especially young women, to atmospheric science, as similar programs during my secondary school and undergraduate years had a significant impact on my decision to become an atmospheric scientist.

In summary, I feel that I can have a positive impact on increasing numbers of young women who are considering careers in atmospheric science, but still have relatively few female mentors and role models. In the past, I have benefited tremendously from dedicated teachers who have nurtured my interest in science. I constantly strive to apply what I have learned and effectively use my wealth of experiences in my classes, field trips, and research to develop in students an appreciation for science and the atmosphere in which we live.