

TEACHING INTERESTS AND PHILOSOPHY

My teaching interests include classroom instruction, field and laboratory coursework, and advising both undergraduate and graduate students in a broad range of topics in plant ecology, including: forest ecology, soil ecology, plant ecophysiology, ecosystem ecology, restoration ecology, biogeochemistry, disturbance ecology, and global change biology. Currently, I teach undergraduate coursework in Natural Resource Management (NREM 301) and Applied Forest Ecology (NREM 480), and graduate coursework in terrestrial Ecosystem Ecology (NREM 680) and Restoration Ecology (NREM 680). Prior to beginning work at the University of Hawai'i at Mānoa, I taught students in a variety of capacities. While working on my Ph.D. at the University of Wyoming, I taught General Biology laboratories which included the development and coordination of exercises as well as working directly with students. I also co-taught a Life Sciences course designed for education majors, for which I was awarded the outstanding graduate student teaching award for the 2000-2001 academic year at the University of Wyoming. Prior to this, I was solely responsible for designing and teaching college-level courses in Geographical Information Systems, Forest Ecology, and Dendrology at the Universidad Católica del Maule in Talca, Chile.

Classroom teaching experiences have given me first-hand experience in, and a healthy respect for, the rigors and responsibilities involved with educating students. I view teaching as a serious commitment that requires a significant expenditure of time and energy, but it is one of the most rewarding aspects of my job. In the classroom, I strive for an interactive and experiential learning environment that includes a healthy mixture of core material and concepts, skill development, and active learning through discussion and participation by students. For course content, I use a mixture of material from texts and primary literature that highlights both fundamental concepts and recent advances. In the laboratory and field, I design activities that are meant to give students a hands-on and more in-depth understanding of course content, as well as experience with modern techniques, measurements, and data analysis. I also like to include independent projects, papers, and presentations on subjects of direct interest and relevance to course material and, ideally, a student's chosen career. Helping students develop their communication skills is a very important aspect of my classes.

I have advised more than two dozen students on independent research, senior-year thesis projects, and graduate research projects. I have found the role of research mentor to be one that is immensely satisfying. Being a good mentor involves finding a healthy balance between providing enough guidance to make a project professional and feasible, and enough independence to challenge a student to think, be creative, and solve problems analytically. In my experience, an ideal student research project is often carried out within the umbrella of a larger project that provides a base of intellectual, logistic, and financial support. By being part of a larger project, students have the opportunity to interact in a way that is similar to the way modern science is done now, thereby broadening the learning experience and expanding future capacity to collaborate. As a faculty member, then, having a well-funded research program is very important! Some students, however, are advanced enough to identify interesting ecological questions and begin designing their own projects, and I always encourage this activity.