

Personal Statement of Teaching Philosophy

From an early age I have had an innate curiosity about the natural world. I had the unique experience of spending time with a number of noted scientists who visited my family farm in the 1980s to see a unique ecosystem that today, is considered one of the highest quality remnant wet prairies in Iowa. It was through this experience I understood not only the resilience of nature, but the impact humans can have on the environment.

Throughout my career I have served as an interpreter on many levels. I left the farm for college, began a career in the corporate world, and thought my days of work outside were over. I set my sights on the high tech industry and worked for companies in software and telecommunications as a technical writer, researcher and corporate spokesperson. It was important to understand complex systems, but explain them in simple terms. Little did I know a decade later I would be back in nature; this time helping with community-based water quality projects, and using these skills to educate citizen scientists. I encouraged local people to get involved in activities like volunteer water quality monitoring as a way to grow the value and meaning of nearby lakes and streams. By understanding economics and policy issues from my diverse training, I worked to make my own neighbors care about local environmental issues. This experience evolved into research opportunities where I worked with the Iowa Department of Natural Resources and Iowa Department of Transportation on urban water quality projects. In both instances, simple tools, language and ideas were used to address complex environmental issues.

My community involvement in water quality continues today as a geography and sustainability science scholar, as well as a local advocate for water resources in my community. Volunteering for a local river cleanup led to becoming president of one nonprofit organization, and a founding member of another group. I firmly believe more people “on” the water tend to care about what’s “in” the water. And connecting the many, often complex, dots of local water quality issues often confuse most people. My leadership and experience navigating complex topics with simple language led me to pursue a PhD in Geographical & Sustainability Science at the University of Iowa. We live in a complex, complicated world yet we seek simple tools to fix problems. My objective is to play a role in this process.

I see the global relevance of the work I do. In recent years, I traveled to India where I met tribal communities also facing complex water issues. In such regions not only are simple solutions necessary; they are often the only possible option due to lack of money, material, or both. Again, involving the local community is also the only way to properly address local environmental concerns. Tribal women strive for economic, environmental and health-related security. We all seek these same goals. My time studying abroad has taught me the similarities among societies worldwide, and the growing need for all to care not only about the environment, but care for it as well.

Spending time in areas inhabited by “new” residents also reinforces my research areas. The summer of 2015, I spent four weeks in Sweden where I intended to research impacts to water quality from salts applied to snow and ice covered roads. This coincided with massive migration throughout Europe due to conflicts in Syria and African nations. My experience grew my concern for what sense of

“community” people from other countries have once they reside in new places. Without speaking the local language, or lacking knowledge of the local landscape, new residents to any community are not only physically separate from more familiar surroundings, but also socially isolated.

My research questions stem from the idea that concern for the environment relates to not only knowledge, but also first-hand experience. My dissertation focuses on understanding physical properties related to winter urban runoff, and the potential for unintended consequences. While chloride is a major concern due to irreversible salinization, I believe there are greater environmental concerns stemming from relationships between soluble pollutants and metal mobilization.

As an instructor I encourage students to answer complex questions that link human activity to the natural world in a systematic manner. This often means using both field skills and desktop skills to formulate complex questions that have a localized impact. By considering a societal context where valuations in terms of culture, policy and economy are incorporated with environmental characteristics, probabilities can be measured based on human expectations. As a scholar, I make a conscious effort to incorporate these elements as a complete view of how humans interact with the world, understanding simple problems often require complex solutions. Students aware of their individual impacts, along with skills and knowledge to measure, manage and maintain a sustainable footprint become the ultimate outcome.