

Curriculum Vitae

Margaret Henderson

Professional Profile

I am a dedicated and enthusiastic teacher of chemistry. I have taught many levels of chemistry, including introductory non-major classes, the general, organic, and biochemistry series for pre-nursing/health students, general chemistry for majors, and organic chemistry for majors. I have an interest in increasing student engagement and critical thinking and reasoning skills through use of a wide variety of teaching techniques including use of case studies, hands-on activities, games, collaborative group work, and meaningful lab work. I also have an interest in carbohydrate chemistry, the chemistry of natural products, and the use of plant-derived chemicals to replace petroleum-based feedstocks.

Education

Ph.D. (Organic Chemistry) June 1986

The Institute of Paper Chemistry (Georgia Tech)

Dissertation: "Mechanisms of Alkaline Glycosidic Bond Cleavage in 1,5-Anhydro-4-O- β -mannopyranosyl-D-mannitol"

M.S. (Chemistry, Chemical Engineering) June 1982

The Institute of Paper Chemistry (Georgia Tech)

Thesis: "The Kinetics of Hydrogen Peroxide Delignification of Kraft Pulp"

B.A. (Chemistry) May 1980

Smith College, Northampton, MA Graduated with high honors in Chemistry.

Honors Thesis: "Structural and Reaction Studies of $[(\text{Ph}_3\text{P})_2\text{N}]^+_2[\text{H}_2\text{W}_2(\text{CO})_8]^{2-}$ "

Publications

Wei, C.Y. et al, *Inorg. Chem.* 1982, 21, 2556-2565

Teaching Experience

Chemistry Lecturer, Quantitative and Environmental Science and Studies Division,
University of Washington, Tacoma. September 2013 – present

Adjunct Chemistry Instructor, January 2001- present
Pierce College, Lakewood, WA 98498

Adjunct Chemistry Instructor, Fall 1988-June 1991
Highline Community College, Des Moines, WA

Teaching Assistant (General Chemistry Labs) 1978-1980
Smith College, Northampton, MA

Substitute Teacher and Science Enrichment Coordinator, 1991-1999
Old Town Cooperative Preschool, Tacoma, WA 98407

Teaching Philosophy

"Good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a

world for themselves.” These words by Parker Palmer in his book *“The Courage to Teach”* describe perfectly for me what I hope to offer students in my classroom. I have a deep passion for Chemistry, and my first goal is that all of my students, even those who will not continue in a scientific field, leave my class with an understanding of and sense of awe about the ways in which chemistry explains and impacts our lives and world. For those students planning to major in the sciences, my second goal is to prepare them well, with appropriate depth and rigor, for their further studies. I use many teaching strategies and methods to accomplish these goals.

Industrial Work Experience

Associate Scientist (Pulp and Fiber Technology) Jan.1987-May 1988
James River Corporation, Neenah, WI

Summer Intern (Viscous Flow through Fibrous Media) Summer 1982
Kimberly-Clark Corporation, Neenah, WI

Summer Intern (Applications of Fracture Mechanics) Summer 1981
International Paper Company, Tuxedo Park, NY

Summer Intern (Synthesis of Cellulose-Acrylamide Graft Co-polymers) 1980
Summer Intern (Synthesis of Phenol-Formaldehyde Resins) 1979
Weyerhaeuser Co., Federal Way, WA

Other Skills & Life Experience

Served on board of Old Town Cooperative Preschool

Served on board of Tacoma Youth Chorus

Volunteered at New Horizon School, a school for students with learning differences.

Volunteered at Nativity House, a drop-in center for homeless persons.

Volunteered at L'Arche Farm & Gardens.

Teach & participate in Scottish Country Dancing

Hike, backpack, cross-country ski, bike, and garden in my leisure time.

Contact Information

Work: University of Washington Tacoma
Interdisciplinary Arts and Sciences, Box 358436
1900 Commerce Street, Tacoma WA 98402
253-692-4318, mhender5@uw.edu

Home: 4002 N. 37th St.
Tacoma, WA 98407
253-759-0284, wilycell@reachone.com