Report on Fall 2024 Sabbatical Leave Steven Farmer Department of Chemistry

The primary goal of this sabbatical leave was to develop case studies that connect the chemistry curriculum to students who identify as members of racial and ethnic groups traditionally underrepresented in STEM fields (Underrepresented Minorities, or URMs), and to disseminate these case studies through their inclusion in a new chemistry textbook.

During my sabbatical leave, I completed approximately 75% of the proposed textbook. I am currently working with my literary agent and negotiating with the scientific publisher, John Wiley & Sons, for its publication. I fully expect the book to be completed within the next year. Once finished, it will serve as a teaching enhancement resource that chemistry instructors at all levels can use to make their curriculum more inclusive.

The second component of my sabbatical project involved incorporating these case studies into the SSU chemistry curriculum and sharing them with a broader audience. I am pleased to report that two of the case studies were published in *ChemMatters*, a journal aimed at making chemistry accessible and engaging. Additionally, I integrated these stories into my Chemistry 335B course during the Spring 2025 semester. I look forward to including these case studies in future courses, such as Chemistry 115A, 115B, and 335A.

Overall, this sabbatical leave allowed me to develop a project that will enhance SSU's lower-division chemistry curriculum, promote inclusivity, support SSU's mission as a Hispanic-Serving Institution, and contribute to broader improvements in chemistry education.