

Final Sabbatical Report – Robert Keil – Fall 2020

My fall 2020 sabbatical leave project goals were to develop new labs for the chemistry department and to update the department's lab manuals by incorporating experiments used by other schools. When the campus pivoted to remote learning due to the COVID pandemic, I was not allowed to come to campus to work on new labs. In the subsequent semester, we were still advised to limit contact and visits to lab, which made non-essential work impossible.

To salvage something useful from the semester, I decided to focus on creating supporting material for labs that would allow students to simulate the labs from home. The data sets, recorded videos, and instructions were stored in the "Chemistry 1A Shared Resources" course on Canvas. These instructions allowed students who were not physically taking lab to watch the procedures and write up a unique set of data. In addition, I created a new lab ("Pyrolysis of Oxalates") that is beginning to be used in the current course, and one completely virtual lab that used free software to simulate measuring density of a liquid.