Full-Time Hire Date: January 2009 Previous Leaves: 0 Sabbatical Taken: Fall 2018

A brand-new lab manual was locally printed at the Ventura College Bookstore and provided online as PDF files for students to use starting Spring 2019 for the CHEM V01AL course. This new manual was written in a consistent format to reduce student confusion with fully updated experiments, including four brand-new ones that incorporated writing and research as essential components. Each experiment was carefully edited and rewritten to be sure to include clearer instructions, better and more updated theory, and match current safety requirements and regulations. The newly-purchased Vernier data collection systems were tested and incorporated

: The material presented to the students in the lab manual was completely rewritten from beginning to end. The text, explanations, and procedures were changed and updated to encourage critical thinking and scientific and quantitative reasoning skills to align with ISLO-2 and the CSLOs for the course.

: Each of the now-twenty experiments were completely rewritten. The instructions were clarified and examples of calculations and theory were shown to increase student understanding. The procedures themselves were often altered or altogether changed to better match current scientific understanding as well as safety regulations for working in the laboratory and to include the new Vernier data collection systems. Some experiments were changed or moved to better align topics with the order in which the lecture course covers them. Much of the chemistry was also altered so that students can run experiments in a safer, more economical fashion. Examples for every calculation to be done in the lab as well as on the pre and post-lab assignments were added to help increase student comprehension. Four brand-new labs were added to the

to prepare the procedure for the lab themselves based on prior and current knowledge of techniques and theories. Students are also asked to prepare a complete written lab report, including research to previous scholarly studies and information. This will emphasize their understanding of previous concepts as well as challenge them appropriately to help prepare them for the expectations in their next level of classes.