Executive Summary

The Department of Chemistry and the Student Academic Success Center (SASC) will partner to pilot a Fall 2014 Inclusive Chemistry Success Project that coordinates pre-assessment, advising, core instruction, supplementary instruction, and post-assessment. The primary goal will be to improve first-term outcomes for a freshman cohort of thirty (30) underrepresented and underserved students based in SASC who plan to enroll in CHEM 1021 Introduction to Chemistry in order to complete a MAPS requirement or to prepare for a STEM major.

This project will contribute specifically to excellence and student development at CU Boulder by creating an opportunity for this diverse freshman cohort 1) to enroll in a pilot CHEM 1021 class featuring inclusive and interactive

department is one of the few STEM departments that offer an introductory course (CHEM 1021). On average, 41% of McNeill students since 2010 have achieved a grade of A or B (defined as "Success Rate") in CHEM 1021, compared to only 29% in CHEM 1113 with a drop to 19% in CHEM 1133. In the graph and data table below, we show the success rates for all the students enrolled in our chemistry courses over the last 7 semesters; approximately 30-50% of these students had co-seminar support. Some of these students had supplemental instruction, and some did not. We hope to see significant improvement overall, given appropriate placement and critical thinking skills support.

CHEM 1021

positive results that extend beyond the freshman year, allowing for more success in CHEM 1133 and the demanding organic chemistry courses required for most pre-health majors.

Goals and Objectives

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The primary goal of our project in its pilot stage is to improve first-term outcomes for a freshman cohort of thirty (30) underrepresented and underserved students who plan to enroll in CHEM 1021, Introductory Chemistry in order to complete a MAPS requirement or to prepare for a STEM fo(I)30ro Wa ill o(I)7(c) (Ch 3 (i) 2 (e) 4 (

Project Sustainability

After the completion of its pilot stage, we will seek continuing support for the Inclusive Chemistry Success Project from other relevant sources of competitive grant funding, such as the NSF Improving Undergraduate STEM Education.

Our short-term goal is to develop our current ARSC 1400 Co-Seminar Chemistry 1 & 2 into a POGIL version of the complete General Chemistry sequence from CHEM 1021 to CHEM 1133. Partial funding will be provided by our SASC Supplemental Instruction budget, and we will seek a cost-sharing arrangement and/or competitive funding opportunities in partnership with the Department of Chemistry.

Our long-term goal is to develop the SASC STEM Co-seminar Program beyond its original service as supplementary instruction into a set of introductory POGIL STEM core credit courses, prioritizing the subjects of biology, ph

Chase, A.; Pakhira, D., Stains, M. (2013) Implementing Process-Oriented, Guided-Inquiry Learning for

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