

Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Enhancing Faculty Engagement and Student Learning in Foundational STEM Courses at a Large Public University¹ HOWARD JACKSON, KATHLEEN KOENIG, Department of Physics, University of Cincinnati, Cincinnati, OH 45221-0011 — Enhancing student learning requires both the strong involvement of the faculty member and the student. We present preliminary efforts of an NSF-supported multi-disciplinary program to enhance learning in foundational STEM courses. A central theme, supported by evidenced-based research across the STEM disciplines, is that active learning engages students in ways that enhance student learning. A secondary theme is that sustained use of active learning techniques by faculty needs a supportive local culture. We describe our initial efforts with the use of Teaching and Learning Liaisons, faculty members trained in research-based instructional strategies in order to lower the barriers for faculty to try new (to them) active learning strategies, and to increase the probability that these faculty carry out the strategies with fidelity. We have assembled a collection of faculty across the STEM disciplines of Biology, Chemistry, and Physics to participate and will compare initial activities by these departments. Efforts to create a supportive culture for these faculty was also provided by tangible department head efforts

¹We acknowledge support from the National Science Foundation (DUE- 1022563).

Howard Jackson
Dept of Physics, University of Cincinnati, Cincinnati, OH 45221-0011

Date submitted: 14 Nov 2014

Electronic form version 1.4