4CS19-2019-000098

Abstract for an Invited Paper for the 4CS19 Meeting of the American Physical Society

Evidence-Based Faculty Development: Scaling a Model for More Effective Teaching and Learning in Undergraduate Education¹ ROBERT CULBERTSON, Arizona State University

An innovative faculty development program was implemented to improve teaching and learning in a large engineering school. The primary goal of the program was to shift from instructor-centered to student-centered instruction with emphasis on active learning and increased student engagement. This comprehensive faculty development program runs over a one academic year cycle, beginning with eight topical faculty workshops distributed through the fall semester. Six community of practice implementation discussion sessions are spread through the following spring semester. Several assessments, classroom visits, support, and coaching are provided. Using a "train the next trainer" approach, selected participants may continue in the following year as workshop leaders. Results from the first several years will be presented. The methodology, strategies, and much of the content of the program is readily applicable to physics and other STEM disciplines.

¹Supported by NSF Grant (IUSE) #152427