“Bridging Gaps: integrating research expertise with curricular development aimed to synchronize upper division course goals with our large introductory classes”

Dr. Dedra Demaree  
Department of Physics  
Oregon State University

Abstract:  
Oregon State University has an innovative award winning upper-division physics curriculum, but fairly traditional large lower division introductory courses. The department's dedication to team-based curricular development and active-engagement classrooms led to my hire. My expertise is in developing quantitative measures for studying the effectiveness of writing to learn (within the context of physics). I will report on ways that writing can be integrated into large introductory courses in a way that scaffolds students toward goals in our upper division courses, without adding a heavy burden on grading. As part of our curricular reform we are also renovating new classroom space: both large lecture hall space and a smaller active-engagement classroom. I will report on and our vision for integrating our curricular reform with the classroom remodels.