

1135-VJ-3078      **David C. Webb\*** (dcwebb@colorado.edu), University of Colorado Boulder, 249 UCB, Boulder, CO 80309. *The Role of Low Instructional Overhead Tasks as Supports for Active Learning in Undergraduate Calculus Courses.*

In active learning classrooms, students are encouraged to offer conjectures, communicate their reasoning, and justify their arguments in the process of solving mathematics problems. The motivation for this approach is research that demonstrates how active learning can result in increased student persistence in the calculus sequence and improved students' dispositions towards mathematics. However, such approaches require more classroom instruction time, and time in calculus courses is a scarce resource. It also takes more time to plan for interactive instruction (or does it?) This session focuses on design principles for tasks that can be used to increase active learning in undergraduate calculus, but designed to involve low instructional overhead (i.e., additional planning time is minimal). These principles for task design include use of multiple representations, organization of related prompts around key concepts, and planning that focuses on the use of student responses to inform instruction. Using examples from a variety of publicly available instructional activities for calculus, this session will highlight how to use, adapt and design calculus activities that are more conducive to student interaction, reasoning, and problem solving in ways that are practical and productive. (Received September 26, 2017)