

1086-H1-1029 **Joseph Petrillo*** (petrillo@alfred.edu), Division of Mathematics, 1 Saxon Drive, Alfred, NY 14802. *The Alfred University Calculus Initiative.*

The Alfred University Calculus Initiative (AUCI) is a multi-faceted project that combines a new and distinctive curriculum with classroom transformation, video lessons, online homework, and web-based implementation into a comprehensive calculus experience. The goal of the AUCI is to increase understanding and success in calculus and precalculus while maintaining the level of rigor and breadth required for post-calculus courses. This project is being informed by current research and trends in STEM education, which include engaging students with visual and online technology, creating an active learning environment in the classroom, and incorporating meaningful applications. In this talk, we will discuss the motivation and content of the new curriculum and give convincing data that supports its effectiveness. This project is partially supported by the National Science Foundation (DUE-1140437). (Received September 18, 2012)