

1116-VR-2369 **Nicholas Gorgievski*** (nick.gorgievski@nichols.edu), Center Road, P.O. Box 5000, Dudley, MA 01571, and **Kimberly S. Sofronas, Thomas C. DeFranco, Hariharan Swaminathan, Charles I. Vinsonhaler** and **Samantha A. MacMillan**. *Calculus Instructors' Reported Use of Technology to Teach Approximation Concepts in First-Year Calculus Courses*.

This paper discusses the ways in which calculus instructors in higher education institutions throughout the United States use technology to teach approximation concepts in first-year calculus courses. This research is part of a larger study designed to investigate calculus instructors' perceptions of approximation as a unifying thread of the first-year calculus. A survey was administered to 279 calculus instructors. Qualitative measures were employed to extract themes and patterns from the data regarding those calculus instructors' use of technology to teach approximation concepts in first-year calculus courses. Three major themes emerged which focused on (a) the types of technology currently being used by college and university calculus instructors to teach approximation concepts, (b) the frequency with which calculus instructors report using technology to teach approximation concepts, and (c) calculus instructors' perceptions of the role of technology in the teaching and learning of approximation concepts. The findings of this research are of significance to all instructors of first-year calculus courses and may have implications for their instructional practices. (Received September 22, 2015)