

1116-J5-1403 **David M McClendon*** (mcclend2@ferris.edu), ASC 2021, Department of Mathematics, Big Rapids, MI 49307. *Teaching the n th derivative test with inquiry-based Mathematica activities*. Preliminary report.

In this talk, I will discuss an ongoing program at Ferris State University to revamp the calculus curriculum, in part by developing technology-centered, inquiry-based activities to teach calculus concepts. I will focus on one such activity, in which students discover various methods of classifying local extrema (especially the Second Derivative Test and the more general n^{th} Derivative Test) by performing *Mathematica* computations, making and testing conjectures based on the results. (Received September 19, 2015)