Joshua A Cole* (colej@wabash.edu). Teaching the Mean Value Theorem to students not intending to major in math. Preliminary report.

Which of the more theoretical elements of Calculus can I realistically teach to students who do not plan to major in Mathematics? Some relevant factors include: students' abilities, what will help students in other courses or applications, what will help students gain deeper intuitions about calculus, and what will stretch minds and mold students into better thinkers. I argue for an answer exemplified by two choices: to omit all epsilon/delta references, but to teach the Mean Value Theorem. In this choice, my vision of Calculus (for my students), is roughly an idealized version of the Calculus of Cauchy. I argue for these points with reference to the history of Calculus and my experience in the classrooms of small liberal-arts colleges. (Received September 25, 2018)