

1046-E1-1169

Marilyn Reba* (mreba@clemson.edu), Martin Hall 0-202, Department of Mathematical Sciences, Clemson, SC 29631, Clemson, SC 29631. *PEN-TECHNOLOGY AND EVOLVING WEB-BASED INSTRUCTION TOOLS IN FRESHMAN CALCULUS.*

Too many students in first-semester Calculus are unprepared for the pace at which new concepts are introduced, are unable to implement prerequisite Algebra skills, and are unwilling to seek answers to their questions in class. Pen-technology via Tablet PCs and web-based software offers creative opportunities to communicate with struggling students. Our usage of this technology has evolved over four semesters. We have moved beyond the projection of anonymous student-inked submissions and "personalized" feedback on group activities to include student-generated audio-video podcasts and, in Fall 2008, to the weekly remediation of targeted calculus-algebra skills via instructor-created automated inked quizzes. We also have made progress (given a recent NSF grant) on a replay-ink and tagging feature. The tags, in addition to providing analysis of student errors and the creation of better teaching materials to remedy these errors, will also be used to provide detailed feedback to each individual student. (Received September 15, 2008)