

1067-Z1-954

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Calculus teachers often question how to best integrate technology, such as computer algebra systems (CAS), into their classes. At the U.S. Military Academy at West Point, six lessons in the Multivariable Calculus class are taught as “technology labs” in which the students solve two or three Calculus problems on computers using an assigned CAS (we use Wolfram’s Mathematica ©). The labs allow the students to focus on setting up the problem, then use the CAS to solve it, then finally and most importantly, provide a graph of the problem, which enables them to better visualize the Mathematics they are studying on a deeper level than with just pen and paper. The stumbling block we encountered the first semester we incorporated these technology labs was that many students quickly became frustrated with the syntax of the software, were not able to complete the assigned problems, and ultimately missed the learning benefits of the labs. In the subsequent semesters, we have made significant improvement on the implementation these technology labs. We will share these lessons learned and provide ways teachers can prevent student frustration with the software and have their students confidently learn and use the CAS to significantly enhance their learning of Mathematics. (Received September 16, 2010)