

1035-D1-1761 **Christopher M. Smith*** (Christopher.M.Smith@us.army.mil), 3102 Paterson Loop, APT C, West Point, NY 10996, and **Jon Roginski** (Jonathan.Roginski@us.army.mil), 3027B Machin Place, West Point, NY 10996. *Shocking Applications of Mathematical Modeling in the Undergraduate Classroom*. Preliminary report.

It is through the application of knowledge to actual, relevant problems that students grasp the power and attainability of mathematics. This discussion will highlight student growth in a mathematical modeling course within the context of two engaging modeling activities. Activities include student analysis of a data set using three models of increasing complexity and accuracy to predict the cost of electricity. In addition, students will model projectile motion in two dimensions using a polynomial function to model a possible scenario resultant from mortar support given to troops in Iraq. (Received September 20, 2007)