962-G1-440 **Darryl K Ahner*** (ad1298@usma.edu), Department of Mathematics, West Point, NY 10997, and **Gerald Kobylski** (ag8485@usma.edu). *Economics Applications in Multivariable Calculus.*

Interdisciplinary Lively Applications Projects (ILAPs) have been a cornerstone for calculus reform at the United States Military Academy. These projects are developed in conjunction with other departments at West Point primarily to expose freshman and sophomore students to the vast array of real-world uses for the mathematical skills they are taught during their mandatory four semester mathematics sequence. In an effort to expand our student's understanding of real world application of multivariable calculus to other areas, an economics application with the Department of Social Sciences was developed. The project required students to apply concepts from single variable and multivariable calculus to model, analyze, and optimize production within a fictitious manufacturing company using realistic data / functions. This project demonstrated to the students the need for mathematics from pre-production to post-production phases of manufacturing. This project proved successful in deepening cadet understanding and appreciation of the power of mathematics to solve problems in the real world. It also proved successful in furthering the students' understanding of the concepts they were learning simultaneously in their economics' studies. (Received September 14, 2000)