

Meeting: 1003, Atlanta, Georgia, MAA CP C1, MAA Session on Courses Below Calculus: A New Focus, I

1003-C1-251 **William P. Fox*** (bfox@fmarion.edu), Department of Mathematics, Francis Marion University, Florence, SC 29501, and **Richard D West** (rwest@fmarion.edu), Department of Mathematics, Francis Marion University, Florence, SC 29501. *Introductory Mathematical Modeling and Problem Solving Courses with Interdisciplinary Applications in College Algebra as a General Education Mathematics Course*. Preliminary report.

Traditional, skills-based college algebra has been taught at Francis Marion University for years. The majority of students perform poorly in these skills only based courses. There were several issues that we considered: The first issue stemmed from two questions that I asked both myself and the department. "Would you be proud to say that a student finished college only with our traditional algebra skills as their general education mathematics?" and "What mathematical skills and problem solving skills are essential to today's minimal success in the real world?" The second issue was "could a course such as this be used for students to take follow- on mathematics courses. We established a two-course alternative sequence that uses problem solving, real world applications and interdisciplinary projects to motivate the college algebra and enhance the learning of skills. These motivate students to better understand the basic principles of algebra. Performance improved and feedback from most of the students was positive. Based on the overall positive experience, these two new freshmen algebra courses have become prerequisites to other mathematics courses instead of just terminal courses. (Received September 03, 2004)