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Aimee J. Ellington* (ajellington@vcu.edu), Virginia Commonwealth University, P O Box 842014, 1001 W. Main Street, Richmond, VA 23284-2014. *A Modeling-Based College Algebra Course and Its Effect on Student Achievement.*

For three semesters VCU has offered a modeling-based college algebra course. This presentation describes the course and an assessment conducted to determine the effect of this approach on student achievement in comparison to a traditional approach to college algebra. Success rates in the courses; performance on common final exam questions; performance in subsequent courses (precalculus and mathematical applications for business majors); and attitudes toward mathematics over the three semesters will be discussed. Students enrolled modeling-based sections of college algebra in Fall 2004 had a higher success rate in the college algebra course; performed better on common final exam questions; performed less well in a subsequent precalculus course and slightly better in a subsequent business mathematics applications course compared to their counterparts in traditional college algebra sections. Overall, by the end of the following semester, the percentage of students who enrolled in the modeling course and successfully completed college algebra and a subsequent course required for their majors was significantly larger than the corresponding percentage of students in the traditional sections. These results and the results from Spring and Fall 2005 will be presented. (Received August 26, 2005)