

1067-C1-2362

Sarah L Mabrouk* (smabrouk@framingham.edu), Framingham State University, 100 State Street, PO Box 9101, Framingham, MA 01701-9101. *Use of Open-Ended Problems in Multivariable Calculus.*

Open-ended problems provide opportunities for students to apply the concepts and methods that they study and learn as well as to model real-life situations. Learning to assign a coordinate system, understanding how to describe/model real objects using equations/functions of more than one variable, and comprehending how to model motion using vector-valued functions or to determine the optimal value of a function of more than one variable are important for any student of multivariable calculus. In this presentation, I will discuss the effect of the use of assignments/projects linking open-ended problems with real-life objects and applications on student learning and understanding of vector-valued functions and motion, lines, planes, and surfaces, and optimization problems. (Received September 22, 2010)