1014-U1-100

Paul Kochanowski (pkochano@iusb.edu), School of Business and Economics, Indiana University South Bend, P. O. Box 7111, South Bend, IN 46634, and Morteza Shafii-Mousavi* (mshafii@iusb.edu), Department of Mathematical Sciences, Indiana University South Bend, P.O. Box 7111, South Bend, IN 46634. The Use of Spreadsheets to Illustrate Finite Mathematics Concepts.

The paper describes spreadsheet demos taught and used in the linked courses Mathematics in Action: Social and Industrial Problems and Introduction to Computing offered for diverse majors. The courses encourage an appreciation of math as students see an immediate use for it in completing client-driven projects. The courses also emphasize learning math and practicing computer technology applications both through completion of actual industrial group projects and the use of technological demos. The demos illustrate complex finite math principles involving, large data sets, random processes, time consuming computations, and the like. Through pedagogical association of mathematics and computer technology students 1) gain comprehension of the relevance of the concepts articulated in both areas; 2) obtain better preparation to apply both skill sets in future academic undertakings; 3) learn finite math; 4) gain basic skills of information technology; 5) apply math and technology to solve actual projects; and more importantly 6) gain an appreciation of the power of applied math. The paper emphasizes these linkages by describing technology driven demos and pedagogical associations which further provide instructors with flexibility and creativity in lesson plans heretofore unavailable. (Received July 23, 2005)