1116-H1-287 **Michael D Smith*** (smithm@lycoming.edu), Lycoming College, Campus Box 3, 700 College Place, Williamsport, PA 17701. *Use of Microsoft Excel for Gauss-Jordan Elimination.* Preliminary report.

The arithmetic involved in elementary row operations becomes tedious about two weeks into the semester, yet row reduction is a tool that's used in linear algebra problems throughout the whole semester. Microsoft Excel provides a happy medium between not allowing any technology beyond a calculator, and allowing students to row reduce an entire matrix with one command on Maple or Mathematica. Benefits of teaching students Excel include the following:

1. Students have to program the row operations on Excel, meaning they still must determine the correct sequence of row operations.

2. Excel allows you to swap labeled columns, which makes matrices in applications such as the linear programming and the Simplex Algorithm much easier to interpret.

This presentation will discuss my experience using Excel and demonstrate its use in solving a problem. (Received August 22, 2015)