Annela R Kelly* (a3kelly@bridgew.edu). *Systems of Equations as Matrices and Hill Cipher.* The talk will discuss how to solve systems of linear equations by writing these in the matrix form $Ax=b$ and applying inverse of $A$ (an online applet will be included). Next, the fascinating idea of using matrices in ciphers will be introduced. Finally, a worksheet for the students with Hill cipher will be presented. (Received September 16, 2014)