**Ch. 6 Systems of Equations and Matrices**

**6-1 Multivariable Linear Systems and Row Operations**

1. **I can solve systems of equations using matrices and Gaussian elimination.**
2. **I can document each row operation using correct notation when solving a system using matrices.**
3. **I can write matrices in REF form and RREF form.**
4. **I can solve systems of linear equations using matrices and Gauss-Jordan elimination**

**6-2 Matrix Multiplication, Inverses, and Determinants**

1. **I can multiply matrices.**
2. **I can find determinants and inverses of 2 X 2 and 3 X 3 matrices.**

**6-3 Solving Linear Systems Using Inverses and Cramer’s Rule**

1. **I can solve systems of linear equations using inverse matrices.**
2. **I can solve systems of linear equations using Cramer’s Rule.**

**6-3 Technology Lab: Matrices and Cryptography**

 **1) I can use a graphing calculator and matrices to code and decode messages.**

**6-4 Partial Fractions**

1. **I can write partial fraction decompositions of rational expressions with linear factors in the denominator.**
2. **I can write partial fraction decompositions of rational expressions with prime quadratic factors in the denominator.**
3. **I can solve the system of equations that is given from the partial fraction decomposition.**

**6-5 Linear Optimization**

1. **I can use linear programming to solve applications.**
2. **I can recognize situations in which there are no solutions or more than one solution of a linear programming application.**