Learning Outcomes - A Process

Big Ideas:

(And the learning outcomes that will be re-written)

1. **SLO:** Through real world applications students will understand how to create, manipulate, and interpret mathematical models of relationships involving exponential, polynomial, radical, and rational functions.

   Interpretation: Given real data and a real world situation, you will generate the appropriate mathematical model and use it to describe the behavior of the data as well as anticipate future behavior.

2. **SLO:** Students will recognize, apply, and interpret rule of 4 representations of key course elements.

   Interpretation: You will develop a reference guide of multiple representations (graphic, symbolic, numerical/data, verbal/applied) of functions and their applications.

3. **SLO:** Students will develop skills and attitudes for effectively solving problems at an intermediate algebra level.

   Interpretation: You will be exposed to a variety of problem solving situations culminating in a portfolio of your accumulated work. Using your portfolio you will evaluate your progress as a problem solver.

Little Ideas:

Among the subtopics included in this course you can expect to develop a clear understanding of:

- Graphical, Numerical, and Symbolic manipulations of functions.
- The order of operations.
- Understanding and applying properties of real numbers.
- Manipulate polynomials.
- Rules of exponents.
- Solving exponential, polynomial, radical, and rational equations.
- Determining a curve of best-fit for various non-linear data.
- Solutions to applied problems in exponential, polynomial, radical, and rational functions.
- How exponential and polynomial functions apply to sequences.