Guaranteed and Viable Curriculum (GVC) for: (Secondary Math II)

1st Quarter:
GVC #1: **Students will be able to:** Create equations and inequalities in one variable and use them to solve problems. Standard A.CED.1

GVC #2: **Students will be able to:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. Standard A.CED.2

2nd Quarter:
GVC #3: **Students will be able to:** Add, subtract, and multiply polynomials, and understand that polynomials are closed under these operations. Standard A.APR.1

GVC #4: **Students will be able to:** Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay.* Standard F.IF.8.b

3rd Quarter:
GVC #5: **Students will be able to:** Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b. Standard A.REI.4.b

GVC #6: **Students will be able to:** Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x – p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. Standard A.REI.4.a

4th Quarter:

       GVC #7:   **Students will be able to:** Identify the effect on the graph of replacing f(x) by f(x) + k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. Standard F.BF.3

       GVC #8:   **Students will be able to:** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior.* Standard F.IF.4