**WAYNE LOCAL SCHOOLS PRECALCULUS PACING GUIDE QUARTER 1**

| UNIT | STANDARDS | LESSON DAYS | TEXTBOOK CORRELATION |
|---|---|---|---|
| 1 | F.BF.1Write a function that describes a relationship between two quantities<br>F.BF.4 Find inverse functions. b. (+) Verify by composition that one function is the inverse of another.<br>F.BF.4 Find inverse functions. c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.<br>F.BF.4 Find inverse functions. d. (+) Produce an invertible function from a non-invertible function by restricting the domain. | 20 | Chapter 1 Blitzer |
| 2 | F.IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.★ d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.<br>NCN.3 (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.<br>N.CN.5 Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. | 25 | Chapter 2 Blitzer |
| **UNITS: 1 Functions and Graphs**<br>**2 Power, Polynomial, and Rational Functions** | | | |

**MATHEMATICAL PRACTICES**

**Mathematical Practices**

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**I CAN STATEMENTS:**

- I can identify and evaluate functions and state their domain.
- I can identify odd and even functions.
- I can use limits to determine the continuity of a function.
- I can use limits to describe the end behavior of functions.
- I can use the horizontal line test to determine whether a function has an inverse.
- I can find inverse functions algebraically and graphically
- I can identify, graph, and describe parent functions
- I can use graphs of functions to estimate function values.
- I can identify and graph transformations of parent functions.
- I can perform operations with functions.
- I can find compositions of functions.
- I can analyze and graph rational functions.
- I can find zeros of rational functions.
- I can solve rational equations.
- I can find asymptotes of rational functions and explain discontinuities.
- I can describe end behavior of rational functions using limit notation.