

## Pre-Calculus Curriculum Alignment

| Unit   | Objectives   | Content Expectations                     |
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| <b>Introduction to Models</b>                  | Linear Models, Point-Slope Form and Parent Graphs, Shifting Graphs, Median-Median Lines, Quality of Models, Exponential Functions, Radioactive Decay and Applying Laws of Exponents, Ratios With Exponential Functions, Quadratic Formula. | P1.2, P1.4, P1.5, P1.8, 3.1,3.2          |
| <b>Area Between Curves</b>                     | Piecewise Functions, Summation Notation, Intuitive Area and Complex Conjugate, Estimating Area, Areas Using Rectangles, Shifting Areas, Distance as an Area  | P1.2, P1.3, P1.4, P8.1                   |
| <b>Introduction To Logarithms</b>              | Definition of Logarithm, Log Laws, Exponential Equations and Change of Base Rule, and Applications   | P2.1, P2.2, P2.3, P2.4, P2.5, P3.3       |
| <b>Sinusoidal Functions</b>                    | Radian Measure, Unit Circle, Parent Graphs, Transformation, Reciprocal Functions, Graphs of Secant and Cosecant, Solving Trig Equations, Periodic Modeling   | P6.1, P6.2, P6.3, P6.4, P6.5, P6.6, P6.7 |
| <b>Algebra For College Mathematics Courses</b> | Substitution and Pascal's Triangle, Negative Exponents, Binomial Probabilities, Simplifying Rational Expressions, Even, odd, and Power Functions, Completing the Square, Polynomial Division and Inverses                                  | P4.1, P4.3, P5.1                         |
| <b>More Modeling and Trigonometry</b>          | Inverse Sines and Cosines, Tangents, Shifting Trig Equations, Sum and Difference Identities, Sinusoidal Modeling, Double and Half-Angle, Combining Identities  | P1.1, P6.1, P6.3, P6.4, P6.5, P6.6       |